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India on the move: the palanquin, the elephant and the railway

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Abstract

This thesis examines how British travellers experienced the Indian climate and landscape in, from and through three vehicles: the palanquin, the elephant and the railway. Much historical study has approached Western experiences of tropical nature with what this thesis calls a 'sedentary perspective'; that is, by studying the individuals, the sites and the representational practices connected with observant travel. The most obvious aspect of such travel – the mobility of soldiers, merchants, administrators and tourists – has been comparatively neglected. Travel in India, rather than merely connecting events across the expanse of the journey, was a significant space of experience and the mode by which travellers encountered their surroundings. This thesis argues that specific mobilities engendered distinct relations between the perceiving subject and the environment perceived. Means of transport – the palanquin, elephant and railway – were also means of observation, shaping the experience of landscape, ideas of tropical nature and the traveller as subject.

Declaration

I declare that this thesis is my own work and has not been submitted in any previous application for a degree.

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"Transspecies colonial fieldwork: elephants as instruments and participants in mid nineteenth-century India"

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Introduction

Travel has shaped the history of India. This could be said of the movements of rajas, courts and armies, the territorial expansions and contractions of empires, the expeditions of warriors, scribes and merchants, the peregrinations of pilgrims, saints and *sanyasis*, or the migrations of pastoralists, labourers, refugees and the famine poor. Travel was also the means by which India was encountered and described by a long series of foreign travellers – from Megasthenes and Alexander the Great in the fourth century BC, to the Chinese Buddhist monk Faxian in the fifth century AD, to Moroccan Ibn Battuta in the fourteenth, to the Frenchman Francois Bernier in the seventeenth.

The arrival of the Portuguese merchant-voyagers at Calicut in the fifteenth century began over 400 years of colonial travel and record (Pearson and Johnson, 1987). Since, the writings of Portuguese, British, French, Dutch and other European travellers have accreted, tinting subsequent impressions, producing and sustaining some of India's abiding images. Each traveller, inevitably, carried their own expectations and sensibilities, as well as their modes and technologies of observation. Europeans had been visiting and writing accounts of India since the Portuguese landfall and settlement; the number of travellers and accounts burgeoned over the nineteenth-century (Arnold, 2006). Growing East India Company and then British Government territorial sway opened to European travel many politically or geographically remote regions (Keay, 2000, 383-447; Morris, 1973).

One prominent early nineteenth-century traveller, Emma Roberts, wrote that the “native inhabitants of India appear to be addicted to locomotion” (Roberts, 1835, 297). Indians likely remarked the same of

Europeans. Well into the nineteenth-century, Britons and their empire were on the move. Expansionism fuelled this mobility. Founded in 1600, the East India Company initially held a handful of coastal trading outposts: Surat, Calcutta, Madras and Bombay. From the mid-eighteenth-century this restricted presence expanded by means of military force and diplomatic maneuver. From 1772 to 1818 the Company gained much of west-central India, the south Indian state of Mysore, appropriated much of the central Deccan plateau, and prised open the southern Himalaya (Keay, 2000, 383-413). Two wars in Burma, the annexation of Sindh and the Anglo-Sikh Wars culminated in effective British dominion from the Khyber Pass to Colombo and Bombay to Rangoon. By the 1857 'Mutiny', Company rule comprised two-thirds of the subcontinent; by 1900 the red ink of empire covered (modern day) Pakistan, India and Burma.

As boundaries were constantly on the move, so too were military and administrative personnel. Particularly in the early nineteenth-century colonialists were generally attached to the military. A census estimate for 1830 shows there were seven soldiers and officers for every non-military European in India (Peers, 1995, 54; Alavi, 1998). By and large, military experience was itinerant. War, defence and diplomacy sent soldiers, officers and administrators to ever-shifting frontiers. Promotion, skirmish or illness would see them dispatched to another station. The need, from Company and Government alike, for surveys and reports – on matters of geology, topography, forestry, settlements and so on – further fed this recurrent movement. Doctors, engineers and surveyors accompanied regiments into remote corners of the subcontinent. These official duties, in turn, spurred botanical expeditions, hunting trips and other peripatetic diversions during periods of leave or recuperation. In

addition, soldiers, officers and scientists often travelled with wives, sisters and daughters.

Itinerancy meant much of life was lived on the road. The geologist Valentine Ball worked for the Geological Survey of India for 12 years, spending 4 to 10 months of each year on the road observing, recording and collecting. It was a career worked mostly on the go and under canvas (Ball, 1880). The life of a state scientist was, he wrote, “at times a very dull, lonely, and monotonous one” and each season's work “the result of arduous labour, for more than half the time in a most trying climate, and in spite of manifold obstructions, discomforts, and, too often, also of sickness (ibid, viii). Yet for “the lover of nature” it afforded 'exploration', sport, naturalising and, Ball's particular passion, bird-watching. His career, as I go on to discuss, exemplifies the demand for practical knowledge and first-hand observation only possible through travel.

Ball's peripatetic routine was extreme but not exceptional. Even supposedly desk-bound Company officials spent a great deal of time on the move. George Graham, a Bengal magistrate, travelled almost daily by pony and palanquin to inspect, monitor and adjudge around the district of Bhaugulpore (1878). Each morning, servants took down his cot and set up a desk inside his tent, from which he collected taxes and addressed plaintiffs for the day. Trips to a *darbar* or a doctor likewise needed days on the road. He recounted, in these days when the railway's operating miles were still “easily counted”, the journey from his 'up country' station to Calcutta required a week's preparation and 35 days on the road (ibid, 57).

Even the highest administrators did not evade excursions. Governor-General George Eden, Lord Auckland, spent 18 months on a single diplomatic odyssey across north India and passed less than two of his four year term at Government House in Calcutta. (Eden, 1867). A later Governor-General, Lord Dalhousie, spent less than 12 months in Calcutta: he too toured northern India and summered at the fledgling hill station of Simla. In 1863, the British Government Viceroy, Lord Lawrence, instituted the seasonal tradition of relocating the seat of colonial rule. Each May, the Government gathered their dossiers and relocated 1,000 miles, by railway, camel train and bullock cart, to the hill-station of Simla – on a mountain spur in the Himalaya – only to repack and dispatch all back down in September.

Movement also characterised the lives beyond the military. Compelled as much by curiosity as piety, Bishop Reginald Heber toured India twice over his short career (1823-26) (Heber, 1829). He visited Bengal, northern and western India, the Himalaya and Ceylon over a year and a half, before turning to southern India on his second excursion. All told, he spent more time on the road meeting and ministering to nascent parishes scattered across India than he did at his diocese in Calcutta.

For visitors, the experience of India was almost entirely made up of movement. Artists such as Williams Hodges and Thomas and William Daniell, naturalists such as William Griffiths and Joseph Hooker, and female relatives such as Emma Roberts and Fanny Parkes spent much of their time – as travellers do – on the go, covering hundreds or thousands of kilometres (Arnold, 2006). As the nineteenth century proceeded, Pacific & Oriental steamships, John Murray and Thomas Cook guidebooks, colonial ports and hotels, and the expanding railway network enabled a growing number of travellers to visit In-

dia. In 1867 the Scottish clergyman Norman Macleod toured missions from Calcutta to Delhi in two weeks. The author Mark Twain toured Ceylon, south and north India over three months in 1895. Such breadth and speed of journeying required almost daily transit (Macleod, 1870; Twain, 1897).

Thus for British colonialists and other Western visitors, mobility constituted much of their experience of India. Respectively, the geologist Ball, magistrate Graham, Governor-General Auckland and Bishop Heber spent their time in India as follows: eight months a year on the road for a dozen years; sleeping and working under the same tent, month-long journeys to the nearest colonial hub and vacations spent hunting by elephant; an 18-month diplomatic peregrination separating two year's of residence in Calcutta; and two year-long subcontinent-spanning tours. Transit was both a significant 'space' of social existence and a primary way they saw the 'face of the country'.

Travel, mobility and landscape

If much of European life in India was lived on the road, why have historians written of these long travels as if they merely connected events? At least part of the answer lies in a scholarly indifference to movement. Travel is typically conceived as a journey or as movement from site to site. For historians, the primary events of travel phenomena tend to be points of departure and arrival, noteworthy individuals and incidents. This has been the case for scholarship on travel and landscape as well as Indian colonial history (as I will discuss in Section 1). This tendency to emphasise person, place and event can be linked to early twentieth-century anthropological and sociological emphasis on origins, homeland and indigeneity (Clifford, 1997). In the last 20

years, however, James Clifford, John Urry, Tim Cresswell and other proponents of a 'mobilities' perspective have challenged such emphasis on stasis and origin. They posit that human culture and experience are composed of movement as much as stasis; that people *dwell in travel*; and that 'routes' are as significant as 'roots' (Clifford, 1997; Cresswell, 2011, 2006; Hannam et al., 2006; Urry, 2007).

Thus far in the subfield of colonial travel and landscape, vehicular mobility has taken a backseat to persons and representation. Incidents of transit can obliquely matter but only where they contribute to another topic of enquiry; mobility provides contextual colour or subordinate detail. Spatially, this approach could be described as nodal: it examines people, practices and events at sites spread across a journey. Subjectively, it treats the traveller(s) as stationary; we glimpse their journey as discrete points across an archipelago of experience.

Vehicles are essential apparatus to most journeys. Conventional approaches to travel and landscape, however, have largely treated vehicles as what Bruno Latour might call a 'black box'. Borrowing the analogy from computer engineering, a black box is any constituent unit the internal operation of which is too complex or too cumbersome to describe (Latour, 1987, 5). At such points engineers sketch a figurative or literal box around the complex unit and focus only on 'inputs and outputs'. Larger structures and functions can then be analysed without the messy, internal bits obscuring the task at hand. Yet the inner workings of the black box disappear from view. This analogy well describes the attention paid to vehicles; complicated, inconvenient and immaterial pieces of the structure. Rather than examine the process, researchers have investigated the inputs and outputs of travel: individual trav-

ellers, overall journeys, locations visited, significant encounters and consequent representations.

This focus on 'inputs and outputs' diverts scholarly attention not only from a significant suite of experience but also from a significant inroad to an abiding topic of human geographical research, namely European interpretations of landscape and nature. Landscape is a – perhaps *the* – defining object of human geography and has seen pioneering conceptual and theoretical expansion over the past three decades (Wylie, 2007). In terms of travel and landscape, two theoretical frameworks continue to constitute the 'cultural turn' in geography. The first understands landscape as a cultural product and analyses it through largely poststructural interpretation of particular societies, economies and texts. Carrying on Foucauldian and poststructural approaches and, for some, emboldened by a postcolonial ethos, geographers have traced how landscape 'travels'; how European travellers have applied their particular aesthetic, social and moral interpretations and representational practices to colonial territories (Blunt, 1994; Duncan and Gregory, 2002; Mitchell, 2002; Phillips, 1997; Ryan, 1998).

Important writing on colonialism and India has been part and parcel of this body of work. The historian David Arnold reworked Edward Said's notion of orientalism to illustrate how colonial travellers 'invented' as much as encountered the tropics, and thus that European identity has long been encompassed by various ideas of alterity (Arnold, 1996, 142-160). Over the nineteenth century, colonial administrators, surveyors and naturalists increasingly framed Indian climate, vegetation and diseases as tropical, and thereby established "India's place in the tropical world" (Arnold, 1998, 1). British colonialists and other European travellers tended to interpret Indian land-

scapes via its 'tropicality', or suite of representations and associations: as an archetype comparable with Polynesia and the West Indies and as an aesthetically deficient disappointment (Arnold, 2005, 2006; Kennedy, 1996).

Building on and turning away from representational accounts, and often invoking the work of Maurice Merleau-Ponty and James Gibson, a raft of landscape scholarship has taken up phenomenological matters of movement, embodiment and perception (Ingold, 1993, 2000; Wylie, 2002, 2005, 2006; Rose and Wylie, 2006; McCormack, 2005). John Wylie and others have brought phenomenological and corporeal attention to historical accounts of travel. These authors shift analytical focus from representation and discourse to bodily, mobile and affective relations with landscapes as sites of dwelling and practice (Della Dora, 2008; Dubow, 2001; Foster, 1998; Merriman, 2006; Wylie, 2002b; Yusoff, 2007; Dettlebach, 2005). Notably, such work has attuned to movement and materiality in narrative accounts to contextualise travellers' embodied experiences.

While such representational and phenomenological approaches to landscape contrast ontologically and epistemologically (Wylie, 2007, 139-52), they share a common tendency to downplay or ignore the often mundane technologies which enable person-landscape relations. In Mike Michael's terms, each approach tends to posit 'pure', or unmediated, relations between the perceiving subject and landscape perceived (2000). Travellers to India, as much as any mobile subject, encountered landscapes via a range of 'prosthetic' devices. They relied on *sola topis*,¹ cummerbunds, sextants, telescopes and cameras, as well as a range of travel necessities, such as maps, trunks and tents.

¹ A kind of sun hat or helmet, popular with colonialists.

Scholars have not overlooked the material technologies of travel. In fact, some of the most important scholarly works on travel and landscape have investigated ocular technologies, such as the *claudefogues*, camera obscura and photography (Urry, 1990; Crary, 1992). The camera, in particular, transformed the ways in which Europeans in the late nineteenth and early twentieth centuries observed the landscapes they encountered, at home and abroad (Macnaghten and Urry, 1998; Ryan, 1998). Such sophisticated and epochal technologies, however, overshadow the role of more mundane, taken for granted apparatus. Even clothing mediates between person and place (De Caro and Jordan, 1984; Michael, 2000). Vehicles, typical necessities of travel, have largely been treated as machines of transportation rather than machines of perception and experience.

Yet, a small collection of contemporary and historical studies have explored how the material specificities and cultural practices of transportation influence passengers' experience of landscape (Thrift, 1996; Larsen, 2001; Haldrup and Larsen, 2006; Büscher, 2006; Merriman, 2006, 2011). The historian of science, Richard Sorrenson, has argued that the ship, far from a mere floating platform, constituted an instrument of observation which structured the information navigators collected, shaping eighteenth-century geographic knowledge (1996). Ocean voyages were a principal site for European experiences of the tropics. Ships served as transient stages for individual, elemental encounters and a broader representational repertoire which foregrounded sea, coast and weather (Cosgrove, 2005). Railroads, too, transformed individual and societal perceptions of space, time and movement, engendering quintessentially modern experiences of mobility, in turn reconfiguring urban and country landscapes (Schivelbusch, 1986; Stilgoe, 1985; Freeman, 1999).

Like the railway, twentieth century automobility and motorway design have also transformed perceptions of landscape (Wilson, 1991; Nye, 1996; Jackson, 2000; Merriman, 2011). While each of the above studies concerns different vehicles and circumstances, taken together they emphasise how vehicular motion, structure, schedule and route mediate passengers' perception, observation and record.

Vehicles, moreover, mediate not just the physical spaces outside but also the social spaces inside. In other words, vehicles are themselves social spaces which engender particular social relations and behaviours (Schivelbusch, 1986; Augé, 1995; Sheller, 2004; Laurier et al., 2008; Löfgren, 2008; De Sapia, 2013). For colonialists in India, who lived largely as a society of sojourners in an alien land and often sought segregation, this was significant. For a British or other Western traveller to India, vehicles not only transported, they also separated and sheltered, or mingled and exposed.

In this thesis I study travel and landscape through vehicular mobility. Specifically, I have examined a range of published and unpublished documents from across the nineteenth century for evidence of how travellers experienced Indian landscape and climate during instances of transit. This temporal and geographical breadth enabled me to find numerous references and shorter descriptions of vehicular mobility and to investigate the more thorough records of approximately 16 primary sources. In my conceptual and empirical handling of these documents and the phenomena they convey, I focused on the notions of Indian and tropical nature which travellers brought as well as their dynamic, embodied encounters.

I examine mobile vehicular experience because, as I have illustrated above, a significant proportion of nineteenth-century British colonial experience of India occurred on the move. Not only was mobility a significant 'space' of colonial experience, the predominant scholarly works concerning travel and landscape in India have largely passed over mobile and vehicular experiences (Archer, 1980, 1989; Kennedy, 1996; Arnold, 1996, 2006). Moreover, and more fundamentally, I study travel and landscape through vehicular mobility because there are no 'pure', or unmediated, relations between person and landscape (Michael, 2000). Historians have shown how clothing, medicine, ocular instruments and other technologies mediated colonialists' experiences of India (De Caro and Jordan, 1984; Headrick, 1988; Cohn, 1996; Kennedy, 1990, 1996; Harrison, 1999; Johnson, 2008). Vehicles, too, mediated experience. Travellers in nineteenth-century India did not encounter the environment unequipped or autonomously. Rather, they traversed, inhabited and observed the Indian landscape through the aid, interference and influence of devices and movement. Specific vehicular mobilities open a significant means by which to understand British and other Western travellers' experiences of Indian landscape and climate.

In this thesis I investigate the palanquin, the elephant and the railway with three aims. First, and principally, I examine how vehicular motion, structure, schedule and route mediated travellers' interpretations of landscape. For each of these vehicles, I study how a specific modality of perceptual encounter was enabled. The palanquin, elephant and hill railway orchestrated slow and immersive encounters, giving rise to multisensory, detailed and affective accounts. The conventional railway, humming across the Indian plains at 40 miles per hour, engendered distanced, holistic and mainly visual accounts of a 'landscape corridor' (Bishop, 2001). In each case, motion

'gathered' a series of surroundings into one dynamic and collective encounter. The structure – the height, enclosure and so on – of each vehicle conditioned the travellers' viewpoint. The diurnal schedule of transport influenced when and how travellers perceived their surroundings; with active or passive attention and in daylight, darkness or illumination. The vehicle itself – as seen in motion or stationary, and replete with aesthetic and social meanings – also reciprocally constituted the landscape. This is not to say the vehicle determines perception. Rather, vehicular mobility mix with the traveller's observant inclinations. By attending to vehicular mediation, I hope to show that we achieve a fuller and more sincere understanding of travellers' phenomenological experiences and discursive representations.

Vehicular mediation indicates that 'the traveller' as a subject was more than the definite article suggests. Throughout the thesis, I explore how each vehicle's material, mobile and cultural particularities assimilated with the traveller in question. This recognition is not necessarily new. Historians have explored the roles of clothing, instruments and technologies in colonial India (Renbourn, 1957; De Caro and Jordan, 1984; Headrick, 1988; Kennedy, 1990; Collingham, 2001; Cohn, 2001). But it serves to rightfully, if subtly, displace pervasive societal and scholarly conceptions of the European person as the only or primary historical subject and encourages regard for human and animal others in the theatre of travel – primary goals of postcolonial and animal studies literatures (e.g. Said, 1978; Guha, 1983; Wolch and Emel, 1998; Philo and Wilbert, 2000). This recognition also serves to address questions of the European traveller's supposed position of visual mastery (Pratt, 1992; Spurr, 1993).

The third aim of this thesis is to further study of tropicality, or European interpretations of tropical nature. Historians have tended to study travel and tropicality as discourse; that is, by analysing representations, practices and institutions (Livingstone, 1991, 1999; Arnold, 1996; Driver and Yeoh, 2000; Driver and Martins, 2006). While conceptually sophisticated, even contributions to the tropically literature which attend to matters of dwelling and experience tend to do so empirically via sedentary, or nodal, topics of person, place and representation (Driver and Martins, 2006). Study of Indian tropical nature, furthermore, has typically investigated medical and racial discourses and articulated a relatively negative suite of European experiences and representations (Curtin, 1989; Anderson, 1991; Kennedy, 1990; Arnold, 1998, 2004; Harrison, 1999). Examination of travellers' experiences of Indian nature through vehicles and movement reveals different, often more positive encounters, based on the specific phenomenological and observant conditions of vehicular shelter, movement and (comparative) comfort. Vehicles also direct inquiry to nighttime, an unorthodox yet significant aspect of European tropical experience.

I chose the palanquin, elephant and railway because they make up three of the principal means by which British and other Western travellers moved through and encountered India (Deloche, 1993; Arnold, 2006). Moreover, temporally, technologically and socially, they embody two broad eras of colonialism in India over the nineteenth century. Travellers going overland from 1800 until the 1860s went by customary modes of conveyance, such as the palanquin and elephant, but also the pony and myriad forms of drawn cart. In the early century, the Company still nominally acknowledged the authority of the Mughal emperor in Delhi. In addition, colonialists opened themselves to Indian culture and customs. In the eyes of local Indians, Com-

pany representatives (most British travellers) derived their authority from association with and resemblance of local nobility (Collingham, 2001). Travelers journeyed by palanquin and elephant not only for transport but also because these vehicles were Indian hallmarks of wealth and power (Collingham, 2001).

During the late 1850s two momentous events occurred: the spread of the Indian railways and the Indian rebellion, or 'Mutiny'. The relatively fast, efficient and cheap railways rendered human- and animal-powered transport obsolete for long distance journeys. While it took years for the railways to link cities across India, locals and colonialists quickly adapted. By the turn of the twentieth century, India had one of the largest railway networks in the world (Kerr, 2005) and European itineraries largely followed the rails (Murray, 1898, 1911; Cook, 1912). Changing cultural norms also made Indian transport less desirable. It began in the 1830s with increasing colonial immigration and a Utilitarian ethos spread by Governor-General Lord Bentinck. Then larger colonial communities, including more women, and increasing communications with Britain, permitted colonialists to abstain from local ties. The uprising of Indian soldiers and peasants in 1856-57 led to further social distance. By the end of the nineteenth century, British travellers entered a palanquin only when ill or well off the beaten track, and mounted elephants for brief touristic, hunting or diplomatic purposes.

The palanquin, elephant and railway thus illustrate the broader arc of British colonialism in nineteenth-century India: from Company to Government rule; from isolated coastal territories to hegemony over the subcontinent; from relatively open social ties to segregation and chauvinism; and, from reliance on Indian traditional to imported industrial technologies. These vehicles also

parallel the evolving modes of Western travel in India. In the early 1800s, travellers were almost all Company representatives and military men: soldiers, officers and administrators journeying for reasons of battle, deterrence and diplomacy. They travelled vocationally and by available Indian means. By 1900, steamships, guidebooks and hotels enabled colonial residents and Western tourists to reach the exotic sites they had glimpsed in travel narratives, paintings, exhibitions and photographs (Mitchell, 1989; Della Dora, 2007). Such enframing and accumulation of foreign scenery contributed to nascent 'tourist gazes', or modes of viewing foreign difference (Urry, 1990). Thus as well-heeled Westerners were increasingly observing foreign terrain *as landscape*, the railway enabled them to traverse India and consume it visually *en route*.

While the foregoing explains the aims of this thesis and something of the circumstances of travel and landscape in nineteenth-century India, it is useful to take a look at the particular vehicles and topics they entail.

The palanquin, elephant and railway in nineteenth-century India

India comprises roughly the land area and topographical diversity of western Europe, earning it the supranational label 'subcontinent' (Lewis and Wigen, 1997). During the early nineteenth century most roads were trodden paths and the annual summer heat and monsoon deluge rendered land travel extremely difficult for a third of the year. Even by 1900, India possessed relatively few 'metalled' roads (Deloche, 1993). So how, exactly, did British colonialists and other Europeans move about? And how did such mobility influence the European experience and understanding of India?

The answer to these questions depends on the place and period. In the early nineteenth-century, along the coast or navigable rivers such as the Ganges and Indus, travellers went by boat. Overland, Europeans used a range of transport: horse, pony, palanquin, elephant and various forms of pony and bullock carriages. Travellers' primary transport during this period consisted of the *dawk* (post) palanquin service, with relays of bearers booked through local post offices and combined with a network of staging bungalows.² Dawk palanquin travel was relatively quick and convenient because it proceeded at all times of the day, often continuously. In his 1844 *Hand-Book of India* (for travellers and residents) Joachim Stocqueler wrote that "there are but two methods of travelling by land in India, on horseback or in a palanquin. The former is tedious ... while the latter enables the traveller to pursue his journey unintermittingly throughout the twenty-four hours" (Stocqueler, 1844, 187). Thus before the advent of the railways in the late 1850s, travellers could traverse principal routes far more easily and quickly than before 1800.

Palanquins may seem obscure or unfamiliar today but they constituted a principle means of transport in the early nineteenth-century (ALS, 1828; Arnold, 2006). Indians had used the palanquin for millennia before the Europeans arrived.³ Many Europeans considered it a bizarre and 'oriental' conveyance; some even deemed it an "Asiatic effeminacy" that only the ap-

² An Anglicised term from *Bangla* (Bengal, Bengali) and *low* (house) which spread nearly as fast as developments in communications (Yule and Burnell, 1886, 98).

³ The word itself is a Portuguese rendering of *palankha*, bed or couch in Sanskrit derived Indian languages.

parently lazy and idiosyncratic Anglo-Indian⁴ colonialist would resort to (Johnson, 1818, 443). For some British citizens at home it was an ominous sign of Europeans adopting Indian manners (Collingham, 2001). But nearly every early nineteenth-century traveller to India used one. Indeed, much travel writing of this period recounted the vexations of this novel vehicle. Many likened it to a coffin or portable oven – “horsed by men” (Arnold, 2006, 12). The distances and durations Europeans travelled by palanquin were considerable. In 1807 James Mackintosh, Recorder at the Bombay High Court, travelled a thousand miles across south India, from Goa to Madras and back, in a month – roughly 35 miles per day (ibid, 12). John Lawrence, as a civil servant, traversed the 900 miles from Calcutta to Delhi in only 18 days – roughly 50 miles per day (ibid, 12). Most early nineteenth-century travel, however, proceeded at the more sedate pace of 10-15 miles per day, allowing observation of the passing countryside, with frequent stops for rest, shade and sight-seeing. Some hardy travellers, such as Emma Roberts, regarded the palanquin as a unique opportunity to relish India's more remote, 'Romantic' sights (1835). The palanquin was no escape from colonial India; rather it served as a mobile microcosm of its social relations. Travellers not uncommonly berated or beat their bearers, while bearers also capitalised on travellers' vulnerability by using tactics such as striking, desertion and humour to contest such relations.

⁴ The term 'Anglo-Indian' is complex and undergoes variegated application over the nineteenth century. Here, I follow the socially neutral early nineteenth century signification as used by James Johnson (1818) to mean a Briton relocated to or living in India. By the late nineteenth and early twentieth centuries Anglo-Indian would come to (primarily but not exclusively) mean, like the term 'Eurasian' and with a pejorative connotation, people of mixed European and Indian parentage (typically a British father and Indian mistress).

An incident from the travels of botanist Joseph Hooker, en route in north Bengal, illustrates some of the characteristics and challenges of palanquin travel. On a humid night in April 1848 he awoke at 4a.m.,

and found my palkee on the ground, and the bearers coolly smoking their hookahs under a tree (it was raining hard): they had carried me the length of their stage, twelve miles, and there were no others to take me on. I had paid twenty-four pounds for my dawk, from Caragola to the hills, to which I had been obliged to add a handsome *douceur*; so I lost all patience. After waiting and entreating during several hours, I found the head-man of a neighbouring village, and by a further disbursement induced six out of the twelve bearers to carry the empty palkee, whilst I should walk to the next stage; or till we should meet some others. (Hooker, 1854, 65)

Hooker did not much care for palanquin travel. At first the jogging pace, sliding doors and gentle breeze were pleasant, “but soon the novelty wears off, and the discomforts are so numerous, that it is pronounced, at best, a barbarous conveyance” (1854, 12). He also disliked his bearers' scanty dress, physical appearance, language, manners and inclination to prioritise their hunger over his schedule. He especially disapproved of their haggling for gratuities and midnight ‘mutinies’. While Hooker wielded economic leverage and social status, he nonetheless found himself vulnerable. Notably, while Hooker lost ‘all patience’, he found himself entreating, disbursing and walking in the damp darkness. Yet the palanquin offered Hooker certain advantages. It shielded him from sun and rain, suspended the physical strain of walking and afforded him authority in the eyes of locals. He often travelled by night, able to rest or sleep while covering ground, thus enabling him to botanise across eastern India. The palanquin was multifunctional: it doubled as Hooker’s bed, private chamber, writing desk, plant inspection table, suitcase,

and safe. Interior mosquito netting helped him avoid malaria and other fevers. Lying horizontal inside, he could observe the passing scenery, or not, as he chose, and he could conceal or reveal himself.

While the palanquin may be obscure, the elephant has long been a famous and distinctly Indian mode of transport. Eminently useful as vehicles, the East India Company and then British Government operated *keddahs*, or stables, in Bengal and Madras dedicated to catching and training elephants. In the early nineteenth-century, especially where terrain was impracticable by foot, hoof or wheel, elephants were obligatory beasts of burden for military and public works departments' transport of equipment, supplies and artillery. In his 1810 *East India Vade-Mecum*, as later guidebooks would for the railway, Thomas Williamson provided 11 pages of information regarding elephants, including expenses and purchasing advice, utility relative to camels, carrying capacity, veterinary care, nutrition, paraphernalia, caravanserai norms, and Indian attendants.

Elephants also served recreational purposes. Williamson wrote that, "the generality of European gentlemen, rise about day-break, and either proceed to the parade, to their field diversions, or ride on horseback, or on elephants; thus enjoying the cool air of the morning" (Williamson, 1810, 128). Hunting required elephants across the century and few European male travellers to visit India missed the safety and novelty of an elephant-borne hunt, whether shooting or watching. Indeed, the back of an elephant furnished an excellent prospect for travellers across the century, in city or country. From the mid-century on, as the railways spread, elephants became industrial implements and recreational and sight-seeing vehicles. For British, European and Amer-

ican visitors, elephants were animate novelties and icons of India, rather than transport *per se*.

A morning in the travel of bishop Reginald Heber give us some idea of how the elephant as vehicle served purposes of movement, social status and roving shelter. After two months sail up the Ganges, Heber and his entourage of nearly 100 people and animals struck north and then west through the then kingdom of Oudh, outside Company territory. After almost a month of rain-soaked overnight stages, starting at midnight to avoid the midday heat, Heber wrote in his journal of a pleasant November morning:

...at eight we ourselves started on our elephants, and under the shade of chattahs which protected us quite sufficiently from the sun. In fact, on an elephant's back a traveller is so well raised above the reflected heat of the plain, and gets so much of whatever breeze is stirring, that, at this time of the year and in these latitudes, I should care little for the sun even at the hottest time of the day. (Heber, 1829, 395)

For someone who worried extensively over the Indian climate and would ultimately die from fever on tour, mobile protection from the climate was no small matter. Further, Heber rode a caparisoned elephant with parasol (chattah) bearer and led a train of armed and adorned attendants. His cortege, exotic appearance, Company backing and religious rank commanded the respect of local peasants and nobility alike, thus facilitating the political access necessary for travel prior to a formal British dominion.

As the nineteenth-century proceeded, colonial leadership replaced animate with industrial power. From the 1860s the railway network unfurled across the subcontinent. British investment funded the railways. British engineering

designed them. But it was Indian labour that brought them into being. In 1853 the first locomotive sputtered from Bombay to Thana. By 1860 operating miles totaled 838 (Kerr, 2005, 4). Four decades on, the network stretched 23,672 miles, the world's fourth largest, racking up 196,010,000 passengers and over eight billion passenger-miles. The railways of colonial India dwarfed any other nineteenth-century colonial or semi-colonial setting. In 1870 55% of all operating routes in Africa, Asia and Latin America combined were located in India; by 1900 65% of all railways in Asia were Indian. Over this period the railway became the primary means of transport for Westerners and Indians. On the ground, lines, stations, crossings, bridges, viaducts, switchbacks, cuttings, workshops and yards physically molded urban and off-road India. In short, hundreds of millions rode the rails over billions of miles and infrastructure reconfigured the landscape.

It is difficult to find a travel account from the late nineteenth century which does not mention the experience of riding a train in India. Turn of the century guidebooks by John Murray and Thomas Cook largely based their advice and itineraries on railway lines and schedules (Cook, 1912; Murray, 1901, 1898; Murray and Eastwick, 1879). Pivotal though transport and communications were pivotal, the Indian railways did more than convey. As in Europe and America, the railway altered travellers' experiences of space and landscape. Lawrence Waddell, an erudite and well-travelled Colonel, captured the processual dynamism of landscape as seen onboard the Darjeeling Himalayan Railway:

The twisting train curved in and out of shaggy ravines, carrying us through a swift succession of ever-changing scenery. We catch glimpses now of the blue hills and curling clouds above us, and now of the rich green masses of the woods and gorges through

which we were passing, or again of the fast dwindling dusty plains below, which stretched out to the far-off horizon like a great dark restful sea. ... The landscape has hitherto presented the appearance of the truly tropical evergreen forest with its rank growth ... Now, however, the forest began rapidly to change its character. The undergrowth, which was almost a forest in itself, thinned perceptibly, and the landscape got more smiling. (Waddell, 1900, 14)

Not all train journeys were so pleasant or scenic. But they all orchestrated, in some manner, an encounter with landscape – one distinct from stationary or pedestrian observation. The train's height, linear route and velocity permitted travellers to imbibe vast swathes of landscape scenery and grasp regional scale, form and 'character' (Schivelbusch, 1986; Larsen, 2001). Passengers, furthermore, witnessed this sliding panorama from a mostly enclosed capsule which, like a parasol-equipped elephant, sheltered them from the Indian climate. The railway also allowed them to traverse much larger distances with relative ease. They were, however, at the mercy of the railway timetable: schedules shaped when, if and how passengers encountered certain landscapes. While the train shuttled passengers from place to place, the carriage itself constituted a social 'space'. Western passengers could, and typically did, separate themselves from Indians by travelling in First Class or private carriages – effectively mobile enclaves. Yet, as the nineteenth-century wore on, such divisions were eroded by the democracy of the railway. Widespread Indian usage, even of First Class carriages, challenged Western travellers' notions of separation and superiority. Thus riding the railway in India, in addition to modifying physical perception, affirmed a British or European travellers' identity and challenged social relations.

Thesis plan

At the beginning of Part I I review the literature on British colonial conceptions of Indian nature in the nineteenth century and then turn to the study of travel and landscape through vehicular hybridity and movement. First I introduce the discourse of tropicality and its Indian variant. I then discuss how both the tropicality literature and Indian colonial history share a 'sedentary perspective'; they favour stasis and location by focusing empirically and analytically on persons, places and events. A more mobile perspective, I suggest, would attend to the hybrid constitution of the traveller and the ways that vehicular transportation shapes their subjectivity, sociality and observation. I then explore how vehicular mediation extends scholarship on travel and landscape by more sincerely accounting for the phenomenology of actual encounters and material influences on perception.

In Section 2, *Reading historical mobilities*, I discuss issues of researcher subjectivity, ethics, colonial records, 'mobile interpretations' and elephants in archival research. I then explain the primary sources I used, including their strengths and weaknesses as historical evidence.

In Part II, *The palanquin*, I examine how the palanquin's structure, schedule and motion mediated travellers' experience, interpretation and depiction of the Indian landscape and climate, and how the palanquin served as both a climatic shelter and means for Indian bearers to challenge unequal relations. First, I look at how palanquin city tours influenced early nineteenth century travellers' encounters with and descriptions of Madras and Calcutta. I then examine how the palanquin's frequent use for overnight stages led travellers to witness rural and forest India by night, transforming the landscape's ap-

pearance, furnishing imaginative leeway and provoking literary embellishment. Finally, I discuss how palanquin travel outsourced the strain of mobility and climate from the traveller to their hired Indian bearers yet also enabled these bearers to capitalise on the travellers' geographical isolation and social inexperience.

In Part III, *The elephant*, I examine the hybrid constitution of the elephant-borne traveller and the ways that the elephant mediated the environment for those on recreational and scientific tours. To begin, I 'assemble' the elephant riding European traveller: I detail how the elephant's physiological, social and psychological properties as well as training and human companionship combined to produce a mobile amalgamation of human, animal, traditional knowledge and material technology. I then look at how the elephant's height, dexterity and senses enabled travellers to observe the flora and fauna of Indian forests as well as urban and festival surroundings. Lastly, I discuss the elephant as an instrument and as a partner in colonial scientific fieldwork.

In Part IV, *The railway*, explore how the Calcutta-Darjeeling railway journey mediated British and other Western passengers experiences of the Indian landscape and climate. I start by exploring how the structure, speed and schedule of the first two legs of the ride – northbound across Bengal – mixed with passengers' aesthetic and tropical expectations. Then I examine how the narrow-gauge Darjeeling Himalayan Railway contrasted with conventional railway experiences and augmented the impression of Himalayan scenery through motion, proximity and its own distinct presence. Finally, I discuss how late nineteenth-century colonial ideas of racial and cultural superiority influenced British and other Western passengers' encounters onboard and then compare differing experiences amongst Britons, Americans and Indians.

In Part V, I conclude by discussing what is gained from a mobile and vehicular approach to the study of landscape, tropical nature and travel.

Part I: Mobility, travel and tropicality

Section 1

Rethinking mobility and landscape in India

This thesis is motivated by a desire to understand how past travellers made sense of the environments they encountered. In the nineteenth century, however, the very term 'environment' would have been anachronistic. In widespread usage in human geography today, European travellers almost never used it.⁵ Instead, they conceived of nature according to different visual, experiential and conceptual categories: according to climate in a broad, deterministic sense of neo-Hippocratic links to health disease; according to natural history, such as botany, geology and other field studies; according to agriculture (which, in colonial contexts, meant the alteration and management of natural resources); and, according to notions of landscape and scenery.

I do not attempt to engage all these aspects of environment and interpretation. Historians have already written on climate, disease and agriculture in nineteenth-century India (Arnold, 1993; Drayton, 2000; Duncan, 2007; Harrison, 1999, 1994; Grove et al., 1998). Instead, I examine how travellers *moved through* and *looked at* landscape. Like Paul Carter's *The Road to Botany Bay*, I offer a 'spatial history': I explore how European travellers responded to unfamiliar landscapes – landscapes which held a suite of symbolic, utilitarian and aesthetic significance (1987). I do so, however, by taking vehicular mobility as the locus of my empirical and conceptual concern.

⁵ When they did, they referred to their surroundings, such as the 'environs' of a village or station.

In order to discuss travellers' interpretations of landscape I need first to contextualise how Europeans (mainly elite or better off British colonialists) conceived of Indian nature during the nineteenth century. In the first section of this literature review I discuss European understandings of 'the tropics' and how India fit into this broader conceptual framework. As I began to illustrate in the introduction, British colonial experience of India was highly itinerant, and this itinerancy demanded vehicular transport. Building on work by David Arnold and others regarding discourse of tropicality, I go on to critique the lingering theoretical and conceptual legacies that encourage a 'sedentary' attention to people, place, event and representation. Against the grain of this work, I advance the notion of a traveller as a hybrid subject; I conceive of the moving vehicle as a mediator between landscape and observant subject.

Tropicality

Tropicality refers to the European discourses that construct non-European otherness in environmental terms. While cartographically the tropics comprise those areas of the globe within twenty-three degrees twenty-seven minutes north and south of the equator, tropicality refers to cultural beliefs and representations rather than geographical measurement. Put simply, the tropics are a "conceptual, not just physical, space" (Arnold, 1996, 142). Tropicality, then, "is a way of thinking in which spaces are described metaphorically, associating 'the Tropics' with a certain kind of experience, vision, landscape or society" (Driver, 2009, 777). The conceptual mapping of the tropics, always defined in contrast to the 'temperate world', has endured from classical Greek mythology to modern advertising (Cosgrove, 2003; Driver, 2001). Whether depicted positively, as a region of luxuriance and sensuality, or neg-

atively, as a pathological space of degeneration, tropical nature has recurrently represented “a counterpoint to all that is modest, civilized or cultivated – or, in a word, ‘normal’” (Driver, 2009, 777; Gregory, 2001).

Tropicality is not a static or uniform collection of representations spanning millennia of thought and encounter. Rather, it has a history, alongside the attendant terms ‘torrid zone’ and ‘equatorial’, which arose and mutated according to the nature of Western relationships with environmentally and culturally alien colonial territories. While Greek philosopher-geographers contrasted torrid regions of Africa to the habitable (oikoumene) world of Mediterranean Europe, tropicality began in earnest five centuries ago with European ‘voyages of discovery’ to Africa, Asia and the Americas (Arnold, 1996). Early explorers registered differences between Europe and the (often equatorial) ‘new worlds’ through flora, fauna, climate, scenery, disease and human diversity. Moreover, they perceived common tropical characteristics and realised that certain plants, animals and diseases circulated within warm, wet territories. In addition, the tropics contrasted favourably to a rather unhygienic and congested metropolitan Europe in the sixteenth- and seventeenth-centuries, itself subject to famine, plague and war, and yet to develop effective medical practices (Browne, 1996).

Continued interaction between European colonialists and tropical territories served to reinforce many of these positive impressions. Philip Curtin writes that by the early eighteenth-century, travel narratives and landscape imagery had created a “full-fledged myth of tropical exuberance” (Curtin, 1964, 173). Staggering fecundity, warm weather, exotic fruits, valuable spices, bright flowers and curious creatures created a sense of enchantment over equatorial sea territories that Richard Grove has called “tropical island Edens” (1995).

European encounters with the Pacific islands, particularly Tahiti, swelled this perception. As Bernard Smith showed, even scientific illustrators accentuated the novel luxuriance of Pacific coast and seascapes (1985). Novelists and artists further depicted the tropics as a locus of natural splendor and libertine pleasure – a warm escape from cold and straight-laced Christian Europe (Browne, 1996). The German naturalist, Alexander von Humboldt, by weaving together the natural, aesthetic and Romantic, produced the acme of affirmative tropicality. His travels to South and Central America between 1799 and 1804, and the almost thirty volumes of written material which resulted, accomplished more than any other individual effort to produce the tropics as an aesthetic realm and field of scientific enquiry (Manthorne, 1989; Nicolson, 1987). The tropics, as nature's climax, thus made a privileged site for topographical and botanical observation. Humboldt's prolific writings inspired generations of naturalists and artists to experience the tropics and to harmonize scientific investigation with aesthetic awareness (Nicolson, 1995). Charles Darwin wrote that "his whole course of life" was "due to having read and re-read" Humboldt's *Personal Narrative* in his youth (Worster, 1985, 132).

Despite enthusiastic impressions and Romantic-era naturalists, the tropics were an evolving conceptual space. With increased colonial contact and settlement over the eighteenth and nineteenth centuries, negative aspects of the tropics became prevalent. Tropical environments held mysterious and powerful hazards: typhoons, hurricanes and monsoons, earthquakes, volcanic eruptions and poisonous vermin. Cholera, dysentery, yellow fever and other maladies raged in the tropics, plaguing colonial settlers and decimating slave populations (Bewell, 2000). British soldiers' mortality rates in the West Indies and India were double those of home (Curtin, 1989, xiii). Colonial

generals calculated the “relocation cost” of allocating regiments to different “disease environments” (ibid, 6-13). Disease sources remained uncertain. Miasmatic theory asserted that swamps and jungles emitted pestilential vapours which caused malaria (‘bad air’) and other illnesses (OED). European colonialists, while presumed qualitatively different from natives, were not immune to the psychological consequences of tropical climate. Rather, as a temperate race they were especially vulnerable. Medical handbooks estimated European racial purity to degenerate after three generations and the equatorial sunlight to contain harmful ‘actinic’ radiation, a cause of tropical neurasthenia (nerve disorder) (Anderson, 1991; Harrison, 1999; Kennedy, 1990).

Tropical environments did not just degrade the body, but also the mind and soul. District magistrates and agricultural entrepreneurs as well as missionaries deemed the tropics a space of cultural primitiveness and moral laxity (Duncan, 2007; Livingstone, 2002, 1999, 1993). David Livingstone uses the term ‘moral climatology’ to describe the causal connections drawn between the heat and humidity of the ‘torrid zones’ and indigenous peoples’ supposed indolence, intemperance and moral lassitude (2002, 1999). Climate, in particular, “became an exploitable hermeneutic resource to make sense of cultural difference and to project moral categories onto global space” (Livingstone, 2000, 93). Scientists, writes Livingstone, “helped to produce in the minds of the Victorian public an imagined region – the tropics – which was, at once, a place of parasites and pathology, a space inviting colonial occupation and management, a laboratory for natural selection and racial struggle and a site of moral jeopardy and trial” (Livingstone, 1999, 109).

While tropicality has a complex genealogy spanning five centuries, we can draw a few salient points from this review. First, the tropics are a conceptual and ambivalent space. Western – mainly northern European – interpretations collectively constitute a tradition which imbues certain landscapes, climates and vegetation with social significance (Arnold, 2006; Driver and Martins, 2005). Moreover, the tropics constituted Europe's environmental other: a natural foil to 'normal' landscapes, climates, encounters and societies. This other had two halves. On one hand, the tropics were a zone of abundance, fecundity and exuberance, an idyllic realm where life was easy and pleasurable. On the other, the tropics signified an alien world of pestilence, disorder, indolence and savagery, as well as moral and spiritual deterioration. Significantly, tropicality is deeply implicated in European colonial travel. As explorers, merchants, officers, soldiers and tourists journeyed through and dwelled in the hot territories girding the equator, imperial ethos and purpose shaped their encounters and accounts.

India tropicalised

Few nineteenth-century European travellers failed to remark that India differed in fundamental respects from Britain and Europe. While Mughal rulership, Islamic architecture, Persian and Arabic languages, and the arid northern plains had long evoked 'the Orient', European travellers from the early nineteenth-century onward increasingly appraised Indian nature and landscape according to climatic conditions, vegetative luxuriance, regional salubrity and civilisational attainment (Arnold, 2006, 110-22). The term tropical was not applied to India before c.1780 and did not appear much in writing until c.1830 (Arnold, 1998, 6-9). But by the 1840s travellers commonly

used it to describe Indian nature, climate and vegetation (ibid). From this period to the early twentieth-century we might say that European natural science, medicine and art 'tropicalised' India. India, however, tended toward the darker side of tropicality's ambivalence; while possessing key tropical traits, for colonial travellers it was a land rife with difficulty, disease and degradation (ibid; Collingham, 2001).

Medical historian Warwick Anderson has written that by the 1830s natural historians and physicians had scientifically assured the existence of the tropics (1991). What remained open to dispute was whether such a region was "defined most accurately by vegetation, parallels of latitude, isotherms, humidity, or a relative discomfort index" (ibid, 140-1). Unease or vexation may seem like curious environmental yard-sticks, but many foreigners judged Indian nature through bodily difficulties. In other words, Indian tropicality may have been a suite of representations, but it began with mundane and often intensely visceral encounters: the seasickness and sunburns on the voyage out; the "itching, unsightly bumps" delivered by the "incessant bites of innumerable mosquitoes", the torment of 'prickly heat' which felt as if "a-hundred needles" scraped the skin, and the "boils which break out when ... [prickly heat] gets very bad; the summer heat of northern India that rose to "an obsessive torture dominating thought and talk and action", or the humidity of Bengal which "takes all the strength and the succor out of you like a vapour-bath" (Quoted in Collingham, 2001, 1). Indian nature accosted the senses with heat, glare, dust, noise and odours, "Vile, foul, penetrating, body- and soul-destroying" (Beames, 1961, 292). But even worse than "the petty annoyances of the insect race, the destructive moisture, the obtrusive reptiles", wrote *The Calcutta Review*, "is the slow, midnight, wasting fever,

and the quick, mysterious pestilence that walks the noon day, and defies the power of science" (1848, 190).

Disease and death became in many ways India's defining tropical qualities. Europeans died at home too, of course. But death in India seemed to strike with alarming swiftness and indifference. One colonial resident, Lucretia West, heard of her friend Mrs Newnham's death, who had taken "Tiffen here last Thursday, had an attack of fever that night, expired last evening", and remarked that "Here people die one day, and are buried the next. Their furniture sold the third, and they are forgotten the forth" (Quoted in Collingham, 2001, 1). For Britons in India, rank and file soldiers faced the cruelest odds: combat aside, they were at least twice as likely to perish during service than their compatriots at home (Curtin, 1989). The historian Philip Curtin wryly labelled this quantitative trend 'death by migration' (ibid). In fact, for a soldier, travel was, statistically, more deadly than battle due to the exposure, exertion and lack of sanitation and potable water (ibid). Disease did not only plague soldiers and civilians. Lord Dalhousie, Company Governor-General, watched his wife, father, and elder brother succumb to illness in India. His elite acquaintances faced similar risks. In his correspondence, he recorded story of a "poor young fellow" at Simla who, "was dancing in my house last Wednesday" but caught a fever and "was buried today". "If nothing else goes fast in this country", continued the early advocate of railways and telegraphs in India, "disease and death speed" (Quoted in Arnold, 2006, 22).

Notably, it was physicians with prior West Indian experience who first applied the term tropical to India. James Johnson wrote perhaps the most authoritative early nineteenth-century medical treatise on India, *The Influence of Tropical Climates, More Especially the Climate of India, on European Constitutions*

(1813). He classified Bengal, the only part of India he visited, as tropical and attributed nearly every malady to the effects of heat and humidity. Medicine became a pillar of India's tropicality. The subfield of tropical medicine developed to a large extent in India, where the preservation of British health remained an imperial imperative well into the twentieth-century (Harrison, 1999, 1994). The Secunderabad delta outside Calcutta would be the site for German bacteriologist Robert Koch's identification of the cholera bacillus and, of the Indian Medical Service, Ronald Ross's discovery the role of anopheles mosquitoes in transmitting malaria (Arnold, 1998).⁶ This kind of practical science, while removing miasmas from the list of natural threats, helped to cement India's place in the tropical world (ibid).

Scientific findings mixed with folkloric fear. While treatments and sanitation improved over the century, Ranald Mair, Chief Surgeon at Madras, wrote in his popular 1874 pocket-volume, *Medical Guide for Anglo-Indians*, of the persisting, though not “altogether untrue”, anxieties with which Britons viewed the Indian environment:

Not many years ago, the climate of India was looked upon as something to be dreaded. The young man proceeding to the East, was expected as a matter of course to return home, if he ever did return, a sallow, yellow coloured, emaciated invalid, with his liver sadly damaged, his mental energies and nervous system much enfeebled, and his constitution generally so shattered, as to render him unfit for any social intercourse or enjoyment. (Mair, 1874, 13)⁷

⁶ Ross would receive the 1902 Nobel Prize in Medicine for this discovery.

⁷ *Medical Guide for Anglo-Indians* was also included in Hull and Mair's 1878 *The European in India; Or, Anglo-Indian's Vade-Mecum*, another widely used handbook for travellers and residents.

Such expectations shaped experience. Indian tropicality began not while walking off the gangplank at Madras or Calcutta but in books and conversation at home. India was a known medical gamble and each traveller weighed the risks of travel before departure (Harrison, 1999, 1994). The Bishop Reginald Heber, whose journey I detail in Part II, believed he could serve Christianity in India. But he and his wife Amelia had lost their first child, and her health was poor. Ominously, Amelia's brother had died a decade earlier in the West Indies. Heber consulted several doctors, who offered clashing counsel: one claimed going to Calcutta guaranteed peril while another stated that with due precaution the risk was no greater than in Britain (Heber and Laird, 1971, 24).⁸ Heber decided his evangelistic calling outweighed the peril and he and Amelia set sail for India, "that land of disappointment, and sorrow, and death" (quoted in Arnold, 2006, 94).

Considering such worries, bodily protection was a primary concern. In 1817 Richard Reece, a London surgeon, wrote a *Medical Guide for Tropical Climates* and, from his Picadilly premises, stocked a 'tropical dispensary' replete with tonics, purges and febrifuges. India featured prominently in Reece's book, though he had himself not travelled or lived there (Arnold, 1998, 5). Over the nineteenth century a "vast material and commodity culture associated with health, hygiene and travel to the British tropical colonies" developed in London (Johnson, 2008, 70). Before sailing or steaming for India, travellers stocked up on a critical technology of tropical travel: clothing. In London or transiting the Sinai, travellers purchased several items supposed to preserve their constitutions in the Indian heat: flannel binders, spinal pads, linen pants

⁸ Including Charles Darwin's father, their family physician.

and, especially, sun helmets or 'sola topis' (Arnold, 1998; Johnson, 2008; Kennedy, 1990).⁹

If India's tropicality emanated mainly from discomfort and disease, travellers registered it through topography and appraised it according to an ambiguous blend of medical and aesthetic criteria: salubrity and fecundity. British colonialists knew to avoid areas of dampness and 'putrefaction' – cause of the dreaded miasmatic airs. While deltas, swamps and 'jungles' made for good shooting, British travellers refrained from overnighing in these areas, and sometimes extended a day's stage into the night to avoid camping in a 'poisonous' atmosphere (Guneratne, 2002). In homes and travellers' bungalows the British slept on raised beds, rather than mattresses on the floor, for miasmas were thought more concentrated at ground level.¹⁰ While the ability to fortify their surroundings and bodies gave British travellers confidence, the need to organise passage and dwelling according to environmental threat reinforced how vulnerable they were to Indian nature (Arnold, 1993, 49; Collingham, 2001, 84).

It is not surprising, then, that some travellers wrote India as a succession of potentially pathological spaces. The botanist Joseph Hooker's *Himalayan Journals* reads like a roving appraisal of regional healthfulness (1854). Calcutta, Dacca, Churra Poonji and Silhar ranged from merely insalubrious to utterly perilous; the "jungles of Bihar and Birbhoom ... [were] singularly un-

⁹ 'Sola' refers to the pith of the plant *Aeschynomene aspera*, L. (N. O. *Leguminosae*), 'shola' in Hindi. 'Topi' means hat. The sola topi, or pith hat, refers to many variations of sun helmet worn by colonialists and European travellers. See Yule and Burnell, 1885, 646.

¹⁰ They also situated such high beds in the middle of the room and, preferably, open to the garden for the freer circulation of air, used mosquito nets not only to block the insects but because mosquito 'curtains' were thought to block the passage of putrid miasmas, a fortuitous idea for in blocking the mosquitoes the nets served as a barrier to the actual vectors of malaria. See Harrison, 1999.

healthy"; the Terai was a "pestilential region" congested with "malarious vapours"; and Siliguri was a "fatal" district (ibid, 32, 101). In addition to clothing, camp kit and furniture, the British found a geographical means by which to construct sites of salubrity within India's tropical environment: the hill station, or 'sanatorium'. It was a spatial strategy imported from Britain's West Indian experience; by 1900, over 200 hill-stations had been constructed around the subcontinent, mostly along the arcing outer Himalaya. Perched thousands of feet above the hot plains and above the range of anopheles mosquitoes, hill stations provided an escape for soldiers, civilians and others who could afford a tri "Like meat", quipped Emily Eden, "we keep better here" (1867, 129). This escape assuaged fears and paranoias, and furnished a symbolic station of colonial rule and 'civilised company' (Kennedy, 1996; Kenny, 1995). That India contained a host of elevated, quasi-temperate safezones both challenged and confirmed India's tropicality. India possessed an enormous diversity of topography, climate and vegetation. It earned the geographic label *subcontinent*, after all (Lewis and Wigen, 1997). But its elevated, clement precincts also contrasted markedly against general conditions and experience. That 'European constitutions' required trips to these temperate outposts on the rim of a torrid core verified India's environmental otherness – and peril (Arnold, 1998; Harrison, 1999).

Sights of tropicality were important. Each traveller packed a suite of aesthetic criteria and desires, much of which hinged on India's display of tropical characteristics. The profuse vegetation and swaying palms of coastal Ceylon and Madras pleased European travellers across the nineteenth-century (e.g. Sherer, 1824; Twain, 1897). But the 'tropical idea' revealed itself, paradoxically, in travellers who felt disappointed by India's lack of tropical luxuriance and obliged to apologise for the inadequacy. India's want of exuberance and

fecundity frustrated many traveling naturalists. As the botanist Joseph Hooker steamed up the Hoogly river towards Calcutta in 1848, the low mangrove swamps “exhibit[ed] no tropical luxuriance, and were, in this respect, exceedingly disappointing” (Hooker, 1854, 49). In his 1880 narrative of a *Jungle Life in India*, the geologist Valentine Ball wrote that much of Bihar, Orissa and Bengal did not resemble his image of the tropics:

There is generally a harshness and dryness about the vegetation of these jungles, together with want of varied colours, which I did not expect to meet with ... I soon found that the tropical luxuriance and density of undergrowth in the forests which I did expect need not be looked for in these parts of India. (1880, 23)

The tension between an aesthetic and a healthful appraisal – and thus the assessment of India's tropical character – appears vividly in the word and the idea of the jungle. Jungle became a keystone of European “intra-tropical semantic exchange” and a canonical addition to the discourse of tropicality (Arnold, 1998, 2). In Sanskrit-derived Indian languages *jangala* had denoted dry scrub or uncultivated lands (Yule and Burnell, 1886; Zimmermann, 1999). But in colonial English, not only did jungle come to denote wet-dense rather than dry-scrub, it came to connote “a rich contrast between the relatively benign and well-ordered temperate forests and the tangled, mysterious and dank vegetation that constituted tropical forests” (Arnold, 1998, 2). According to India's 'dark' topicality, lushness and fecundity signalled not just exoticism and wilderness but vegetative disorder, confusion and excess, a primeval home for beasts of prey, and the site of ‘natural’ struggle. Jungle contained, in a word, the spectre of tropical nature. For British colonialists, furthermore, cultural sights augmented the lurking menace: crowded Chris-

tian cemeteries, decaying tombs and temples, desert-like dry season pastureland and several famines across the century (Arnold, 2004).

Beyond the wider, historical discourse of tropicality, there are distinct aspects to India's tropicality. First, Indian tropicality encompasses the four points I summarised above. For European (mainly British) travellers, it was an ambivalent conceptual space; it was implicated in colonial travel; it served as a counterpoint to European notions of 'normal' nature, landscape and society; and, it was interpreted via a visual register of tropical characteristics. More specifically, Indian tropicality was bodily and quotidian. Europeans registered it through their direct – often difficult – everyday experience of climate, movement, diet, dress and dwelling. It was also characterised by discomfort and disease, and thus actively mitigated. British travellers and residents relied on corporeal and domestic technologies, such as sola topis, spinal pads and raised beds, as well as sequestered sites of respite, such as hill stations and ocean voyages, in order to endure their time in India. Finally, though less discussed, tropicality was experienced and negotiated through the everyday forms of mobility which constituted much European experience of India.

Tropical travel, Indian colonial history and sedentary perspectives

The notion of tropicality resembles Edward Said's concept of orientalism, and the geographical scholarship which extended his critical examination of European colonising discourses and 'imaginative geographies' (Blunt, 1994; Gregory, 1995a, 1995b; Phillips, 1997). When David Arnold first discussed the 'invention of tropicality', he deliberately reworked Said's canonical thesis to

propose that Western identity has long been encompassed by various ideas of alterity (Arnold, 1996, 142-160).¹¹ While orientalism (Saidian and pre-Saidian) emphasises history and the humanities, tropicality foregrounds nature and science. It developed during the late eighteenth and early nineteenth centuries through geographical reconnaissance, scientific fieldwork and landscape painting in colonial territories girding the equator (Arnold, 1996; Driver and Martins, 2005). If the orient epitomised art, religion and history, the 'tropical world' was a quintessential location to observe climate, vegetation, wildlife and disease. In short, tropicality created otherness in environmental terms.

While the study of tropicality foregrounds the environment and European travel, it largely retains a Saidian – thus Foucauldian – analytical approach based on discourse and representation (Said, 2003). Like other discourses, tropicality works as a theoretical frame through which scholars assemble and analyse a diverse set of representations, practices and institutions. Scholars studying tropicality have mainly applied this frame *to texts*. This is understandable given that written sources make up most of the archival record of past travel. Besides, Arnold and others before and since have explicitly conceived of tropicality *as a discourse* (Arnold, 1996, 142-160; Driver and Martins, 2005; Driver and Yeoh, 2000; Livingstone, 1991; Stepan, 1991).¹²

¹¹ While Arnold first articulated 'The Invention of Tropicality' in his (1996) *The Problem of Nature*, precedents existed: see, for example, (Smith, 1985; Stepan, 1991; Livingstone, 1991, 1993, 217-41). See also, Bowd and Clayton, 2005; Clayton, 2003.

¹² Scholars invoking tropicality have not uncritically adopted the theoretical frameworks of discourse and representation. Driver and Martins remind us of the risks in conceiving of images like orientalism or tropicality as "already fully-formed, ready-to-be-projected, a position which greatly exaggerates their coherence and consistency" – as well as the reciprocal role of other in formations of 'the European self' and the transformative power of travel (Driver and Martins, 2005, 5; see also Driver and Yeoh, 2000).

Despite its analytic success and sophistication, tropicality's theoretical roots render it primarily textual, visual and sedentary. That is, scholars investigate textual and visual tropes while (implicitly) conceiving of interpretation in a stationary manner, or what the mobilities literature (to which I turn below) would call a sedentary perspective. Given that the historical and geographical study of tropicality is situated in contexts of European travel, this claim requires explanation.

For human geography – as for literary theory and postcolonial scholarship – travel has often been studied in terms of its representation: its written accounts, usually journeys of 'exploration' and 'discovery', and the knowledge of the 'rest of the world' gathered and brought 'home' (Duncan and Gregory, 2009, 774; e.g. Barnes and Duncan, 1992; Blunt, 1994; Driver, 2001; Duncan and Gregory, 2002; Elsner and Rubiés, 1999; Keighren and Withers, 2011; Pratt, 1992; Said, 2003). That is not to claim that these studies overlook or fail to account for movement. Principal contributions, such as Alison Blunt's (1994) *Mary Kingsley...* and Derek Gregory's (1995, 2002) work on Egypt, trace specific instances of travels. However, indicative of a broader disciplinary emphasis on representation, *The Dictionary of Human Geography* has no entry for travel but one for 'travel writing' (Duncan and Gregory, 2009, 774).

This emphasis also characterises the subfield of tropicality. In the two most sustained geographic compilations on tropicality, a special issue in *The Singapore Journal of Tropical Geography* (Driver and Yeoh, 2000) and Driver and Martin's (2005) edited collection, *Tropical Visions in an Age of Empire*, none of the contributions attend to how movement, transit or vehicle might have influenced the practices of observation or subject-transformative 'visions'. Authors do mention vehicles and voyages; but as an oblique contribution to

biography or scientific authority (e.g. Dettelbach, 2005; Martins and Driver, 2005). Arnold, in his (2006) *The Tropics and the Traveling Gaze*, adapts the discursive approach of Foucault (following Pratt) as well as the semiotic-discursive interpretations of landscape advocated by Dennis Cosgrove (1984; Cosgrove and Daniels, 1988). While Arnold argues for the influence of itinerancy on colonial knowledge and history, he analyses iconographic 'ways of seeing' at specific locations, presenting travel as a series of static encounters and socio-symbolic interpretations (Arnold, 2006).

One result of this discourse-based empirical and conceptual analysis is that it emphasises place rather than movement: places of origin, of exploration and of return. Spatially, the scholarly study of travel might be described as 'sedentary' or 'nodal': it examines isolated locations and events spread over an expanse of regions traversed. This trend arguably originates in two paradigm setting works. For example, while John Urry charted touristic practices of observation in his *The Tourist Gaze* (not practices of transportation) it is nonetheless peculiar that a subfield-defining book *based on travel* passed over movement and transit (1990). Indeed, the editors of one collection on tourism landscapes wryly note that travel history and sociology – due to their focus on identity and representation – have paradoxically overlooked actual acts of travel (Aitchison et al., 2002). In her influential *Imperial Eyes*, Mary Louise Pratt also bypassed the role of mobility to transcultural encounters and Euroimperialist depictions of the 'contact zone' (1992). In a sense, these influential contributions – and many since – downplay a fundamental aspect of travel: travel itself.

The field of Indian colonial history also shares this sedentary perspective. Scholars have typically focused on the biographies of eminent administrators

and travellers, the principal administrative institutions (the military, civil service and revenue agency), and scientific organisations such as the Royal Asiatic Society, the Indian Medical Service and the Great Trigonometrical Survey. Yet many excellent works imply or emphasise mobility in nineteenth-century colonial India. The journalist and writer Jan Morris has vividly illustrated individual trials and thrills on the road as situated microcosms of broader colonial encounters and projects (1973, 19-32, 71-85, 175-190). Historians of disease and medicine have linked British epidemiological challenges and solutions to the itinerant character of their lives, where abundant exertion and exposure combined with want of clean water and food (Curtin, 1989; Harrison, 1999, 1994). Bernard Cohn has formulated five 'investigative modalities' of British colonial knowledge-gathering; the most prominent 'observational/travel' and 'survey' modalities created "a repertoire of images and typifications" ready for European eyes traveling along a standard itinerary template – the 'Indian Grand Tour' (Cohn, 1996, 4-11). Daniel Headrick has articulated the import of steam-engines, ships and railroads – 'tools of empire' – as means of communication and transportation which both enabled and spurred British dominion over India (Headrick, 1981, 1988). And Jean Deloche and Ian Kerr have studied transportation in India pre and post steam locomotion, meticulously enumerating India's routes, roads, castes, animals and vehicles. Yet all these analyses centres on broad political, economic and social trends, leaving out the fine-grained experience of travel (Deloche, 1993; Kerr, 2005, 1997).

I have argued, then, that scholarship on tropicality and Indian colonial history have informed our understanding of environmental interpretations and of colonialism in nineteenth-century India. Yet by studying a person or period, administration or organisation, practice or representation, origin or

event, they implicitly direct conceptual and empirical focus towards stasis and location. I say implicitly because each of these Indian colonial histories, whether epidemiological, representational or technological, indicates that mobility not only influenced but constituted the very fabric of colonialism. Governance and trade, cultural practices and representations, technology and infrastructure, fieldwork, surveying and exploration: each was highly itinerant. Thus we have the peculiar situation in which historical geographies of travel, the subfield of tropicality and Indian colonial history illustrate the significance of mobility yet few attempt to study the influences of that mobility.

Mobility and 'the traveller'

James Clifford, John Urry and Tim Cresswell have argued that broad scholarly conceptualisation of location and stasis as the locus of culture originates in early twentieth-century anthropological and sociological emphases on origin, homeland and indigeneity (Cresswell, 2006; Urry, 2007, 2002). Cresswell dubs the consequential scholarly focus on sites and sited phenomena as a 'sedentary metaphysics' (2006). Since the salvos of Clifford and Urry, sociologists, anthropologists and geographers have challenged 'sedentary' epistemologies by exploring how movement constitutes human experience and culture as much as stasis, location and origin – that people 'dwell in travel', that 'routes' are as significant as 'roots' (Clifford, 1997; Urry, 2002).

While scholars of the 'new mobility paradigm' collectively articulate a prescient point – that we dwell in movement – the lives of nineteenth-century colonialists and travellers suggest these scholars situate mobility too firmly in

the present. Noting the expanding frontiers and settlements as well as restless transitions of military servicemen, the historian David Arnold argues that understanding colonial mobility is key to understanding European knowledge and representations of India (Arnold, 2006, 16). Individual lives illustrate this mobility. In fact, for many colonial residents in nineteenth-century India, travel and residence did not divide neatly in two. In the introduction I presented the geologist Valentine Ball, the magistrate George Graham, the gubernatorial sister Emily Eden and the Bishop Reginald Heber. Respectively, they spent their time in India as follows: eight months a year on the road for a dozen years; sleeping and working under the same tent, month-long journeys to the nearest colonial hub and vacations spent hunting by elephant; an 18-month diplomatic peregrination separating two year's of residence in Calcutta; and two year-long, subcontinent-spanning tours. Such mobility suggests that British colonial residents and travellers in India experienced the environment in motion, in transition and in vehicles.

In the following sections ('Vehicular hybridity' and 'Mediation of landscape'), I suggest that vehicular experience is an effective means by which to explore past mobility and travellers' interpretations of landscape. Before this I need to address a related, fundamental issue of travel: 'the traveller' as a subject. Quotation marks underscore two problematic characteristics it contains: there is the definite article, which suggests autonomy and there is 'traveller', which denotes a person who is travelling or who often travels. Why do I choose this term and not one of its synonyms, such as passenger, tourist, wanderer, explorer and so on? Each component of 'the traveller' imparts traits and associations worth considering.

In attempting to rehabilitate sociological explanation, Bruno Latour poses a pair of fundamental questions: “When we act, who else is acting? How many other agents are also present?” (Latour, 2005, 43). He stresses the need to include the gamut of human and non-human entities in research and analysis. Latour’s advocated approach, Actor Network Theory (ANT), refrains from commencing with stable, *a priori* categories such as ‘society’ or ‘culture’. Instead, such categories are understood as the *results* of the relations of a multifarious mix of actors. ANT inverts the direction of explanation; not from scholarly labels *down* but by tracing heterogeneous elements *up* in a progressive composition (ibid, 10). Research, then, begins from the “*under-determination of action*” and follows an ontologically open, inclusive range of actors (Latour, 2005, 45, original emphasis).

This theoretical inversion should change the way we think about travel and landscape in India. Geographical writing – as well as historical, sociological and literary – seldom questions the category ‘traveller’. Six of the most important historical and geographical works on travel over the past three decades choose not to define the term (Blunt, 1994; Carter, 1987; Duncan and Gregory, 2002; Elsner and Rubiés, 1999; Phillips, 1997; Pratt, 1992). Where it is defined, the term denotes a (usually European) person who has traveled to, or resided in, a foreign land; these include explorers, merchants, scholars, sailors, soldiers and tourists (Urry, 1990). When travel scholars have scrutinised the term, they have done so on humanist terms (Buzard, 1993; Urry, 1990). Moreover, this discrete notion of subjectivity – elided or explored – *starts with* rather than *ends with* the traveller.

‘The’ traveller as a physical, corporeal subject suggests independence and self-sufficiency. Few Western travellers to India resembled such an ideal.

Rather, *the* or *a* traveller meant one or more Europeans (usually bourgeois, usually male) accompanied by guides, porters and assistants, as well as animals, vehicles, trunks, tents and provisions. The Bishop Reginald Heber, for example, boarded a budgerow in Calcutta with two dozen servants and his archdeacon.¹³ Before starting overland from Allahbad he procured: a horse to ride, five ponies for his servants, 24 camels and eight bullock carts for camp supplies, a buggy for his archdeacon, 40 further servants, more 'coolies', 12 tent pitchers and was provided with an escort of up to 40 sepoy under a Company officer (Heber, 1829). While such entourages diminished later in the century as the railway network expanded, they did not disappear. Florence Donaldson and her husband toured Sikkim and Darjeeling for six weeks in 1899 with one personal servant and a minimum of six 'coolies' (Donaldson, 1900).

Non-humans too figured as 'assistants'. A traveller relied heavily on material artefacts: map, compass, tent, bungalow, bags, provisions, camera and so on. The numerous accoutrements did not rest apart from a traveller's experience of the environment. "Places and landscapes", Haldrup and Larsen remind us, "are not encountered 'naked' but through the deployment of a variety of 'prosthetic' objects and technologies" (2006, 280). In her 1888 guide for ladies, *The Complete Indian Housekeeper and Cook*, Flora Annie Steel recommended for 'camp life': a tent with curtains and veranda fly, mosquito nets, folding tables, chairs, cots, stove, kitchen utensils and many light wooden trunks (and 11 camels to carry this load) (1888). The 1911 Murray *India* handbook recommended the following kit for a tour of India, including a hill-station visit:

¹³ Budgerow, an Anglicisation of the Hindi *bajrā*, is the name of "A lumbering keelless barge, formerly much used by Europeans travelling on the Gangetic rivers. Two-thirds of the length aft was occupied by cabins with Venetian windows. (Yule and Burnell 1886, 91).

light overcoat, long ulster, warm jacket, "Flannel or woollen underclothing and sleeping garments, and a flannel 'Kammerband'" for northern India nights and hills; cool linen suits, thin dresses, light cloak, linen underclothing, ventilated sun helmet and parasol, for hot days and the south (Murray, 1911, xx). Then, for sleeping in bungalows, friends' houses and trains, "The minimum equipment is a pillow and two cotton-wadded quilts, ... and a couple of warm blankets ... a pillow case, cheap calico sheets, and a light blanket" – and a waterproof canvas sack in which to store them all. Finally, a tiffin basket, medical handbook, novels, shooting gear (for the sportsman), and personal necessities.

All these animate and inanimate companions suggest that the category 'the traveller' is insufficient and inaccurate. Travellers relied on – and, in a sense, were composed by – the people, things and animals they traveled alongside. The idea of the explorer single-handedly navigating and completing their journey has long been aesthetic and rhetorical. Pratt, for example, notably traces how pioneering travellers such as Burton and Speke were more or less led to geographical discoveries by their hired team (1992; see also Godlewska and Smith, 1994). Such human and non-human resources suggest two conclusions: the traveller comprised a heterogeneous conglomeration of devices, people and knowledge; and, thus their agency was distributed amongst these assisting agents and factors.

A first step to making sense of 'the' heterogeneous traveller is to reconsider the term itself. I do not propose we reject it. While ambiguous the term traveller is so common, inclusive and neutral that it retains utility. Other terms carry their own baggage. For example, tourist suggests contemporary and superficial encounters. Explorer or adventurer, suggest heroic masculinity

and the élan of discovery (Phillips, 1997). Wanderer, globe-trotter, sight-seer, pilgrim, migrant, commuter, drifter, visitor and nomad are yet narrower. Passenger, however, encompasses the general characteristics of travel and movement. More than this, it also embraces heterogeneity, relationality and shared agency.

The term passenger also recalls Latour's question about which and how many agents are also present and acting. The vehicle furnishes and constrains their perception, and modifies their appearance and subjectivity – not to mention capacity for movement. Above all, the term passenger moves away from the erroneous notion of a solitary individual subject on the move, and towards the groups within and by which travellers on the move are sustained; a passenger cannot be independent or self-sufficient. Besides, the vehicle, driver, fellow passengers, luggage, guide and documents, as well as education, prejudice, disease, anxiety, elation, liberty and other subjects and objects of mobility come (closer) to the fore when we think in terms of a passenger. The passenger, as underscored by its tensions between activity and inactivity – between moving and being moved – is less unitary or deterministic (Adey et al., 2012). If we understand a traveller to *also* be a passenger, then we understand this subject to act with and alongside a range of mobile agents.

Movement, materiality and experience

If the traveller is a hybrid entity then scholars of travel and landscape ought to consider how, exactly, vehicles influenced the experience of both. In the previous section I argued that historical geographies of travel, the subfield of

tropicality and Indian colonial history collectively illustrated the significance of mobility yet few actually studied mobility's influence and characteristics. Instead, by foregrounding a person, place, event and representation, such work directed analytical focus towards stasis and location. These 'fixed' topics detract from what Arnold has called the "raw kinetics" of colonialism; a political entity and suite of human experience continually on the move and in transformation (Arnold, 2006, 16). British India was an itinerant empire, and the experiences of residents and visitors indicate that the European encounter with India was characterised by movement, a movement afforded by that vehicular transport. This suggests, in turn, that travellers' experiences, interpretations and representations of the India environment were mediated by these technologies of travel.

Over the past decade, historical and cultural geographers have questioned the theoretical foundations of discourse-based approaches and proceeded to explore the *experience* of looking at landscape. John Wylie and others – embracing the ontological overhauls of Maurice Merleau-Ponty, James Gibson and Tim Ingold – have challenged the capacity representation-driven accounts to register or explain the perceptual and subjective entanglements of seer and seen (Foster, 1998; McCormack, 2005; Merriman et al., 2008; Rose, 2002; Rose and Wylie, 2006; Wylie, 2006, 2005, 2002a).¹⁴ They argue that semiotic-discursive accounts of landscape rest upon Cartesian ontological and epistemological foundations which separate body from mind and eye from world (e.g. Wylie, 2007, 2002). In short, the study of space and landscape as representation emphasises the product of vision and (thereby) de-emphasises

¹⁴ It is important to note that this wave of phenomenological work on space and place is a second wave, preceded by mainly humanistic geographers. Some cardinal citations include: Relph, 1976; Seamon, 1979; Tilley, 1994; Tuan, 1979, 1971.

the *experience* of vision. This phenomenologically inclined work does not so much negate the questions of representation, identity and so on, but aims to evoke practical, performative and non-representational dimensions of landscape in a parallel vein of study (Wylie, 2007, 139-179).

Cultural geographers have applied phenomenology and embodiment not just to contemporary ethnographic encounters but also to readings of historical accounts of travel and landscape. This small but growing body of work attends to materiality and movement to contextualise travellers' accounts of landscape in its embodied and enacted circumstances (della Dora, 2008; Dubow, 2001; Foster, 1998; Merriman, 2006; Wylie, 2002b; Yusoff, 2007; Dettlebach, 2005). These authors shift analytical emphases from social-text-discourse to practice-body-material, thereby foregrounding bodily, mobile and affective connections with the environment seen, traversed and inhabited.

Ingold, Wylie and other scholars write of phenomenological relations in such a way that the material technologies of transport, dress, habitation and observation, while present, play so small a role as to suggest that travellers encountered the surrounding landscapes free of aid or interference. The historical work by della Dora (2008), Dubow (2001), Wylie (2002a), Foster (1998), Yusoff (2007) and Dettlebach (2005) discuss ships, wheels, wagons, sextants and other devices, yet proceed to analyse, as Dubow writes, "the drifting mass of the subject's sensory surfaces" in relation to the actual and meaningful world around it (Dubow, 2001, 241). A travelling subject's sensory surfaces do not 'drift' nor do they contact surrounding space and landscape directly. Rather, they rely on and function through an array of mundane and sophisticated devices.

I believe this lack of emphasis on mediating material technologies originates in the landscape-based essays of Tim Ingold and from his readings of Merleau-Ponty. Ingold, has consistently argued that landscape constitutes a relation to nature which is “essentially practical”: it revolves around quotidian practices of dwelling and knowledge about what the landscape affords (Ingold, 1992, 46; see also 2004, 2000, 1993). For Ingold, we move through a landscape and perceive affordances which reflect our conditions as embodied, cultural beings. Landscape is therefore constituted by “dwelling” in which nature and culture, mind and matter are indissoluble (Ingold, 1993). This dwelling fundamentally concerns practices: it is a ‘*taskscape*’ (ibid). It is necessary to note, here, that Ingold has been attentive to the role of materials and devices regarding cultures of dwelling. In addition to extensive work on skilled practice, he has written about perception through footwear, brushes, saws, maps and other technologies (2000; 2004; 2007).

Yet, with specific reference to his practically-oriented landscape work, Ingold posits person-place relations which are “epistemologically Edenic”: he bases them on indivisible corporeal-cultural relations to nature via practical, embodied knowledge which inscribes itself in the landscape and vice-versa (Michael, 2000, 112). In influential articulations of this dwelling perspective – such as *The Temporality of the Landscape*, a cardinal citation for geographers writing phenomenological accounts – Ingold foregrounds embodiment, memory and culture while understating or omitting the role of material-technological entities through which people carry out their dwelling and relating (Ingold, 1993, 2000). The result is that Ingold posits a kind of purity situated in apparently seamless relations between person and landscape. People dwell, practice and know but free of devices.

It is worth noting that this phenomenological study of landscape is often underpinned by Merleau-Ponty's anti-Cartesian ontology of 'being-in-the-world' (Dubow, 2001; Foster, 1998; Scott, 2006; Wylie, 2002b; see also Muegler, 2011, 160-79). Such uptake, however, overlooks Merleau-Ponty's attention to technology, hybridity and mediation. In his *Phenomenology of Perception*, he refutes any Cartesian division between person and world. A person "is not psyche joined to an organism, but the movement to and fro of existence", centred firmly in bodily-cognitive experience. Merleau-Ponty posits, however, not one but several 'bodies', among which is the body as 'anchorage in the world' from which practical, motile perception emanates (Hickman, 1990, 44). Merleau-Ponty illustrates this latter body with habits we form in everyday movement and observation. He writes, furthermore, that habits are a kind of "motor significance": we acquire them not by learning but by practice and live within a "motor space", or milieu replete with artefacts which we inhabit, wear, use and ride (ibid, 45). We walk through doorways, put on a hat, park our car or test the ground with a walking stick, and do so without cogitating *per se* but through acquired proprioception and competency. 'Thinking' may even inhibit the efficiency of such movements and abilities. Moreover:

To get used to a hat, a car or a stick is to be transplanted into them, or conversely, to incorporate them into the bulk of our body. Habit expresses our power of dilating our being-in-the-world, or changing our existence by appropriating fresh instruments. (Quoted in Hickman, 1990, 44)

These two sentences convey critical aspects of technology, hybridity and mediation. To wear, drive or feel the surrounding environment *through* a device is to assimilate the device into our body, either by transfer of our self into it

or vice-versa. Our corporeal-cognitive being is therefore a hybrid, constituted in part by technology. Merleau-Ponty spends several pages illustrating such hybrid competencies through the example of a blind person's stick, a typist and an organ player. In each human-non-human composite, perception is mediated through a particular material technology. Finally, the word 'dilate' is apposite because it suggests that such technological assimilation *expands* perceptual possibilities. Devices – incorporated in a literal sense – initiate and furnish access to a range of potentialities and affordances (see also Michael, 2000, 112). Such apparatus mediate not just material-motile but also socio-semiotic landscape relations. Picturesque or sublime relations to landscapes, for example, rest on a reconceptualisations of rural nature, (Bowler, 1992; Nicolson, 1997; Thomas, 1984; Williams, 2011) and gender divisions (Day, 1996), but also the development of transport systems which facilitated access to rural and 'wilderness' sites (Wallace, 1994). Particular sorts of persons must be able to access particular sorts of natures. Moreover, apparatus such as clothing, instruments and vehicles carry a range of social and symbolic meaning. They signify much about who a person is and to which social group(s) they belong. Vehicles, for instance, are not only present in the landscape, they also constitute landscape. The meaning of landscape is a function of technologies of observation and access.

Vehicular hybridity and mediation in India

It is fitting, I think, that Merleau-Ponty uses the example of driving a car. Vehicles, along with clothing, cameras, carriages and other apparatus, enable, suggest, direct, inhibit and preclude person-landscape relations. Many historians have examined the clothing, weapons and technologies that British

colonialists used in India during the nineteenth-century. Headrick, for example, has highlighted the profound influence of steamships, gunboats, looms, quinine and the railroad in enabling and empowering colonial rule in India, but also in spurring it on by initiating economic possibilities (1981, 1988). At a more mundane artefactual level, historians have also scrutinised the now iconic and much caricatured sun-helmets, white linen suits and other pieces of British colonialists' official and unofficial uniform – typically framing these material technologies as 'tools of empire' or socio-semiotic signifiers (Arnold, 1998; Cohn, 2001; De Caro and Jordan, 1984; Deloche, 1993; Harrison, 1994; Headrick, 1981; Johnson, 2008; Kennedy, 1990; Kerr, 1997; Renbourn, 1957). Such material technologies *were* tools and signs. But they were more: they were agents in collective acts of mobility and encounter.

Whether we think of them as tools, signifiers or prostheses, vehicles shape human projects and proceedings. They summon Latour's two questions: "When we act, who else is acting? How many other agents are also present?" (Latour, 2005, 43). Historical, sociological and geographical work on vehicles has examined how various means of transport constitute extensions of personality and frames through which drivers and passengers engage the world around them (Schivelbusch, 1986; Miller, 2001; Michael, 2000; Merriman, 2011). Vehicles integrate with and thereby reconfigure bodily form and proprioception. A significant body of monographs, edited collections and articles have examined the influence of vehicles on individual phenomenological and society-wide conceptions of space and landscape. Historians, sociologists and geographers have shown how bikes, buses, automobiles, trains and airplanes mediate visual experience. Speed reveals qualities of the landscape such a flow, scale and rhythm, (Jackson, 2000; Wilson, 1991; Bissell, 2009; Merriman, 2006). Motion choreographs the sequence, angle and ap-

pearance of structures and topography (Jackson, 2000; Schivelbusch, 1986; Wilson, 1991; Bishop, 2001). Journey schedule, departure and arrival influence the intensity of passengers' attention and observation (Bissell, 2009; Büscher, 2006).

And unlike cameras or shoes, travellers do not only use but *inhabit* vehicles, making them mobile social milieux. In human geography, planes, cars and carriages are now familiar 'sites' of lived experience (Adey et al., 2007; Laurier, 2004; Laurier et al., 2008; Spinney, 2009). Much of this research attends to contemporary and Western (European and American) contexts (Cresswell, 2006; Larsen, 2001; Merriman, 2006; Retzinger, 1998; Schivelbusch, 1986; Stilgoe, 1985; Urry, 2007). The vehicles researched are few and conventional: primarily the railway (Haldrup and Larsen, 2006; Larsen, 2001; Löfgren, 2008; Retzinger, 1998; Schivelbusch, 1986; Stilgoe, 1985) and the automobile (Bücher, 2006; Cresswell, 2006; Merriman, 2011, 2006; Zeller, 2007, 2011; Nye, 2011), and, on occasion, the airplane (Adey, 2007; Adey et al., 2007) and the bicycle (Ruff and Mellors, 1993; Spinney, 2006).

Among the most important works on vehicles and landscape is Wolfgang Schivelbusch's 1979 *The Railway Journey* (first published in German). Schivelbusch demonstrated how railway travel in the nineteenth century transformed individual and societal perceptions of space, time and landscape, generating archetypal modern experiences of vision and physically reconfiguring urban and rural landscapes. The motorised vehicle integrated with traveling body, forming a "machine ensemble" – the *passenger*. This perceptual configuration both enabled and constrained perception. While the speed and structure of a moving railway carriage reduced contact, proximity and detail, the passengers' raised, linear position afforded vantages while velo-

city 'multiplied' visual objects and enabled appreciation of scale, form and the 'rhythms' of a flowing panorama.

In maritime settings, Sorrenson has argued that the ship in the eighteenth-century constituted an "instrument of observation" which influenced the scope and nature of information navigators and naturalists collected, and thus geographical knowledge more broadly (1996). It provided its occupants with a "superior, self-contained and protected view of the landscapes and civilizations" they encountered, while vessel-specific range and mooring further influenced navigators' onboard observations and, in turn, eighteenth-century geographical knowledge (ibid, 222). The ship, furthermore, by way of its aristocratic and Admiralty commissioners, astronomical value, state-of-the-art instruments and luminary crew, possessed authority in the eyes of British and European scientific circles.

In the introduction and in this literature review I have sought to illustrate the extent to which European colonial residents and travellers in India lived 'on the move'. The Bishop Heber undertook journeys lasting over a year to minister to his scattered flock; the geologist Ball crisscrossed eastern India on fieldwork for several months at a time; the magistrate Graham toured his district regularly, working and sleeping under the same tent. The sheer expanse of India and expanding territorial sway of the Company and then British Government entailed travel; colonial administrators ordered surveys, generals dispatched regiments to battles and frontiers, governors went on diplomatic tours, and civilians and even the government itself relocated annually to hill stations. Moreover, the tropicality literature, historical geographies of travel and colonial histories collectively show the significance of mobility to European experiences of India. Meanwhile, contemporary and historical

studies show how vehicular travel mediates passengers' interactions and interpretations of the environment.

I have also sought to illustrate nineteenth-century British colonial notions of Indian nature, or tropicality. Like the more general discourse of 'the tropics', Indian climate and landscape were 'conceptual spaces', seen and understood in light of scientific and artistic notions of tropical nature, implicated in colonial travel, ambivalent and a counterpoint to temperate, 'normal' nature. More specifically, British travellers experienced Indian nature through bodily and quotidian interaction, sought to mitigate its supposedly hazardous effects on the 'European constitution', and tended to interpret it via landscape scenery.

There is confluence of vehicular mediation and British notions of Indian nature, brought together by the mobility of colonial residence and travel. The four themes – bodily and quotidian, discomfort and disease, mitigation and landscape scenery – give context to the ways in which the palanquin, the elephant and the railway influenced travellers' mediated of India and Indian environments. Landscape scenery was a principle way that nineteenth-century travellers conceived of what we now call the environment. Thus a chief form of mediation was visual: travellers in nineteenth-century India saw landscapes *en route* from – and through – their conveyances. Travellers' vision was hybrid vision: their perceptual faculties and interpretive proclivities integrated with the vehicle's motion, structure, route and schedule. In a palanquin, for example, travellers shuttled through crowds and looked out from a reclined, diagonal viewpoint. They rode high and slow atop an elephant. And they glanced outside – between reading, napping and conversing – as hundreds of miles slipped by the carriage window. Speed and transition

mediated the cultural frameworks travellers carried with them; of picturesque 'scenes', sublime landscapes and tropical iconography. Movement and transition choreographed travellers' perceptual encounter. In addition, vehicles scheduled *when* travellers witnessed landscapes, such as during the morning, evening or dark of night. Relatively rapid transit, such as on a train, could also expand the geographical scale of vision and 'gather' observation around the linear corridor of a railway route. By choreographing the perceptual encounter, vehicles influenced how travellers represented landscapes, such as by rhetorically depicting the phenomenology of speed and transition.

Finally, by their presence, vehicles reciprocally constituted the landscape. The palanquins, elephants and trains that travellers rode and inhabited, from bungalow to bungalow, station to station, or camp to camp, often occupied the foreground of surrounding countryside. Each vehicle held iconographical and aesthetic significance, and like moveable props, added material and semantic substance to Indian surroundings. Vehicles thus played a constitutive role. Like the tents travellers slept in, the palanquin, elephant and railway (re)appeared at each location and layered their significance upon the view.

The recognition that vehicles shaped travellers' encounters with and interpretations of nature entails a further recognition. 'The traveller' was a hybrid subject, composed partly by the vehicle that transported them. Empirically and analytically, vehicular mobility necessitates shifting focus to the human and non-human agents that enabled travel. This shift has implications for how we understand the discourse of tropicality. For example, if vehicles' material, (local) human and non-human agents were imbricated in encounter and observation, then European vision was less autonomous or imperious than some scholars have suggested (e.g. Smith, 1985; Pratt, 1992). The rather

dark Indian tropicality of 'deathscapes', mortality rates and racialised medical treatises is predicated on study of evolving colonial discourses over the nineteenth century. Studying vehicular movement and hybrid perception, as I will show, does not negate these tendencies but adds a different, more positive suite of interpretations, such as boredom, disregard, pleasure, optimism and repose.

Section 2

Reading historical mobilities

Mobility, European records, 'British India' and elephants necessitate an archival approach sensitive to matters of motion, the "colonial archive" and animals as historical subjects (Richards, 1993). The inherently unequal social and political conditions of British colonialism in India permitted the travellers' experiences I examine in this thesis. It is therefore right to consider researcher subjectivity and the nature of records whose formation and preservation owe their existence to injustice, and which largely disregard the perspectives of local Indians. The phenomenological experience of motion is difficult to record in writing – and challenging to interpret. Below, I explain three techniques, or sensibilities, I employ to read the lively and sensuous aspects of vehicular movement. Elephants in the archive, in turn, necessitates consideration of animals as subjects, of humanist meanings and of the historiographical particularities of the Asian elephant. I compare recent elephant scholarship and suggest the merits of Susan Nance's 'transspecies' historical approach (2013). Then, I turn from methodological concerns to those of the specific people and primary sources I have researched. While much of Europeans' experiences of India occurred 'on the move', historical records do not necessarily reflect this proportion. I therefore discuss how I have selected my sources and their strengths and weaknesses.

Over the last decade historical geographers have begun to reflexively engage their subjectivity in historical research and have thereby 'expanded' the available archive (Lorimer, 2009). For example, James Duncan (1999), Gillian Rose (2000), Miles Ogborn (2003) and Francesca Moore (2010) have turned critical attention back on themselves and on the political status and social organisation of their respective archives. This introspective methodological trend emanates (at a delayed interval) from poststructural and postcolonial modes of scholarship which have sought to expose and unravel the complex cultural politics of representation (Lorimer, 2009). Both poststructuralism and postcolonialism view the researcher as an active agent caught up in unequal power relations, rather than a neutral, objective investigator. In short, the characteristics of the researcher and institution bear on the investigation. Researcher subjectivity is thus a tension at the forefront of historical research, and is pertinent to inquiry relying on records from colonial territories.

The historical sources I listed above span two phases of British colonial activity in India: from East India Company commerce and rule in three expanding presidencies to the 'high noon of empire' in which the British crown effectively governed the subcontinent (Edwardes, 1965; Morris, 1973, 1968). As a historical geographer, there are three ways in which I may be considered complicit with colonialism when using archival sources from the colonial period (Duncan, 1999). First, I rely on the inherently unequal and exploitative systems of power/knowledge as did colonialists themselves, what Thomas Richards calls the 'imperial archive' (1993). Many of the British male travelers I follow, for example worked as soldiers, officers, civil servants and administrators for the EIC or British government in India. And nearly all

European and American travellers to India in the nineteenth-century benefited from or relied on transportation, financial, hospitality and other infrastructure which served primarily British colonial interests. Their experiences and accounts (not to mention the archives which stored them) were made possible by imperial and colonial projects.

My dependence on Western accounts largely leaves aside local knowledge systems. There is arguably a danger that Indian peoples are potentially treated as “abstract entities of knowledge rather than as if they had full, intellectual lives” (Duncan, 1999, 120). Even while the archival information I have used is freely accessible to researchers, it still poses ethical questions (Richards, 1993). Where possible I have ventured to discuss the possible perspectives of Indians and to uncover from anecdotes, contexts, imagery and fiction the unscrupulous actions of Western travellers.

While I cannot change the past, I nonetheless feel that the unfair, and at times violent, colonial relationship which made Western journeys in India possible requires the researcher to acknowledge these points clearly and openly. My research deals at times with private, unpublished and personal information, including sensitive topics such as verbal and physical abuse. It is unlikely that the historical persons in question would have desired such incidents to be recorded in historical scholarship. Following Moore’s (2010) conscientious reflections, I strove to act ethically while recording, reconstructing and making public such incidents by ensuring that I provided all known contextual information and by abstaining from wanton discussion of sensitive events (2010). I encourage the reader to likewise consider these peoples in the event of transmitting to others the accounts contained herein.

In addition to travellers' mobile experiences, I discuss the experiences of Indian peasants, guides, porters, nobles and fellow passengers who travelled with or encountered European travellers. The challenge is that few Indians recorded in writing their thoughts on these encounters and, if they did, few recorded their thoughts in English (e.g. Guha, 1983). For example, in Part IV: *The railway*, I examine the railway journey from Calcutta to Darjeeling and discuss how British colonial notions of racial and cultural superiority played out in stations, platforms and carriages. The Calcutta-Darjeeling journey accounts I investigated, however, say little about such social relations and nearly nothing about the tensions which may have arisen between Western travellers and local Indians. This is likely an archival issue: European or American travellers seldom recorded – and even less frequently published – their 'bad behaviour' (Richards, 1993). Yet from anecdotes, images, fiction and other moments of candour we know that prejudice, conflict and violence arose in the 'spaces' of travel. I have therefore taken steps to 'expand' the available archive and 'listen to the silences' of Indians' experience.

First, I drew on Western (mainly British) railway journey accounts from around India. This larger pool of encounters and behaviour allowed me to piece together norms of Westerner-Indian interaction. I read handbooks for travellers and residents, in particular Hull and Mair's (1870) *The European in India; or, Anglo-Indian's Vade Mecum*, to analyse how Westerners were instructed to handle Indian railway travel and the social intercourse it induced. I examined photographs and other illustrations from the Calcutta-Darjeeling journey for phenomena not present in published or private accounts. I likewise applied these three measures to my investigation of the palanquin and elephant. But because the palanquin and elephant were primarily used by European travellers in the early nineteenth century, I have relied mainly on

earlier images and handbooks, in particular Williamson's (1810) *The East India Vade-Mecum* and Johnson's (1818) *The Influence of Tropical Climates on European Constitutions*. In addition, in Part II: The palanquin, I analyse published travel accounts for instances of bearers challenging typical traveller-bearer social relations. Following Ranajit Guha's lead, I read these accounts 'against the grain' for evidence of bearer agency, such as resentment and ire (1983). Finally, I have drawn from British colonial fiction, a 'site' where detached personal reputation from the action depicted and thus where authors tended to elaborate social relations more candidly (e.g. D'Oyly, 1828; Sherwood, 1822; Trevelyan, 1869; Kipling, 1889). Such literary fiction, moreover, furnishes the minutia of everyday relations which many travellers left out of their accounts.

In this thesis I attempt to evoke travellers' mobile phenomenological encounters with the Indian landscape and climate. For a historical geographer, accessing and interpreting embodied and perceptual dimensions of past experience requires experimentation (DeSilvey, 2007; Gagen et al, 2007; Lorimer and Whatmore, 2009). The lives and materials under investigation are all dead and largely gone. Furthermore, much of the embodied and emotional experiences in question were difficult or impossible to record in writing. Consequently, the standard methods of historical geography – which investigate representational pattern and meaning in text and imagery – are insufficient and risk 'deadening' past practices (Thrift, 2000, 1-6). I therefore draw on three techniques for reading the 'more-than-representational' characteristics of historical evidence (Lorimer, 2005).

I examined the material configuration, technical features and locomotive characteristics of each vehicle. Description of vehicular details – such as

bearers' shoulder callouses, elephant foot physiology and train window apparatus – lays the foundation for analysis which understands the travellers' body as assimilated with, rather than separate from, the material technologies of its mobility (e.g. Law, 1986; Hutchins, 1995; Michael, 2000).

I targeted the sensual, material and corporeal details of travellers' descriptions. This task was aided by the expressive quality of many accounts which attempted to convey the movements, emotions and sensations of vehicular travel. Several authors expressed their experiences in vivid prose and tangible detail. Indeed, as I discuss in Part II: The palanquin, some authors invoked a kind of 'mobile prose' to recreate the sensations of their mobile encounter.

Finally, with regard to the Calcutta-Darjeeling railway journey, I drew on my own, contemporary experience as a kind of 'fieldwork' to bolster interpretation of mobile landscape experience. Caitlin DeSilvey has argued that "material remnants and re-enacted gesture can function as vectors for the transmission of memory" (2007, 37-45). Lorimer and Whatmore have likewise shown how *in-situ* contemporary fieldwork can serve as an 'embodied, re-enactive historical ethnography' that brings archival material to life and enriches feeling for past practices (2009, 676). As a tourist, I have ridden the Darjeeling Himalayan Railway; I am familiar with the leisurely pace of this compact train as it ascends subtropical valleys and reveals snow-capped summits, still following its original narrow-gauge rails. While I do not claim any interpretive *carte blanche*, my personal experience of this distinct train and sub-Himalayan environment has enabled me to engage in a more visceral, material and lively historical investigation. That is, my personal experi-

ence helped me relate to the descriptions of slowness, halts, shuddering and so on, as well as the ascending and unfurling views.

Elephants in the archive

The historical investigation of elephants faces theoretical and methodological challenges. The elephants I examine did not ‘speak’ for or record themselves – nor, as Wittgenstein’s lion hypothesis reminds us, would we necessarily understand the elephant if it did (Benson, 2011, 6). Furthermore, animals hold uncertain ontological status as historical subjects. As a historian, I therefore have the dual charge of drawing out “what the animal cannot tell us” and giving “words to the wordless, and voice to the voiceless” (Safina, 2002, 98), while also risking, as Donna Haraway reminds, ventriloquism; of speaking for rather than allowing to speak (2003, 63-124). In researching and writing past human-elephant relations I thus confront three questions: to what extent are elephants historical actors?; what constitutes historical evidence of past elephant lives?; and, how do I examine and convey past the traces of elephant life and action?

To the first question, I take one philosophical position and two methodological strategies. First, while I remain purposefully open to non-human agency, I follow Etienne Benson in considering the issues of past animal agency and ontological status as open, empirical questions, rather than theoretical ones (2011, 6-10). I entreat the reader to entertain the possibility that elephants might possess these properties and to reach their own conclusions based on the material presented.

The above refers to animals generally as historical subjects. 'Animals', however, is a broad, diffuse category. On their 'own terms' – physiological, psychological and so on – and on human(ist) terms – cultural roles and representations – the Asian elephant possesses distinct historiographical characteristics. They are cosmopolitan and charismatic species (Barua, 2013a; Sukumar, 2011; Whatmore and Thorne, 2000), and have, accordingly, attracted scholarly attention from biologists, ethologists, zoologists, conservationists, anthropologists, sociologists and human geographers, as well as classical, European, southeast Asian, Indian and colonial historians (which I discuss more thoroughly in Part III: *The elephant*) (Sivasundaram, 2005; Hart and Locke, 2007; Locke, 2011; Barua, 2013a; Lorimer, 2010, 2007; Barua, 2013b; Jadhav and Barua, 2012; Whatmore and Thorne, 2000, 1998; Whatmore, 2002; Whatmore, 2002; Lorimer, 2010; see also Hinchliffe, 2007).

While historians have investigated various interconnections between humans and the Asian elephant, they tend to write humanist histories: elephants are tools possessions, symbols and other objects of human use and meaning.¹⁵ For example, in his 'Trading Knowledge: The East India Company's Elephants in India and Britain', Sujit Sivasundaram 'uses' the elephant "as a point of focus" to illustrate the significance of colonial knowledge exchanges to nineteenth-century science (2005, 27). For Sivasundaram, though, the elephant is a representative object of human meaning and affairs – appears to have no will or consciousness of its own. Nonetheless he recounts

¹⁵ Indus Valley Civilisation seals (Delort, 1992), Macedonian war-elephant encounters which spurred Persian, Egyptian and Carthaginian taming of the African elephant (Bosworth, 2002; Lobban and de Liedekerke, 2000; O'bryhim, 1991), the ancient roots and routes of the world ivory trade (Chaiklin, 2010), subaltern uprisings against elephant capturing commissions in Mughal Assam (Bhadra, 1983) and Raj Bengal (van Schendel, 1985), early Indian elephant management treatises (Edgerton, 1931; Laine, 2010; Meulenbeld, 2002, 557-79; Oliville, 2013), elephant symbolism in Thai art (Ringis, 1996) and (via Ganesha) Hindu society (Brown, 1991), and colonial records which document elephant use for forestry and hunting (Millroy, 1922; Sanderson, 1879; Smythies, 1942; Stracey, 1957).

'traces' of elephant subjectivity and agency, such as elephant harm and trespassing, consequent British colonial culling and management, and the lives of elephant individuals. Sivasundaram's quarry, however, is not the elephant *per se* but flows of representation: rhetoric, anthropomorphism, imagery, and scientific claims.

By contrast, Susan Nance advances an alternative, interdisciplinary approach to understanding past elephants: trans-species history. In her *Entertaining Elephants: Animal Agency and the Business of the American Circus*, Nance recounts the 'genial circus elephant' as an archetype of American entertainment. She documents the development of the American circus from the late eighteenth to early twentieth centuries, the rise of animal celebrities and elephant symbolism in American culture. Her study combines a traditional, humanist emphasis on human meanings *while also* emphasising the agency of elephant individuals. Significantly, Nance draws upon contemporary biological and ethological research to triangulate amongst historical sources. The key to trans-species history, writes Nance, is to recognise that humans and animals live in symbiosis and that there has never been a purely human space in history. Therefore historians should use 'symmetrical' analysis to write histories where humans are agents in events which are also non-human. Nance summons a historiographical imperative: because humans and elephants lived in symbiosis, a history which does not study the elephants sells short the humans who lived with them, because it cannot know those humans' full story (2013, 7). Treating animals as sentient individuals thus strives for the fullest historical explanation. From this perspective, elephants are subjective historical agents who left 'traces' on the historical record of their behaviour, intentions and character.

Nance's trans-species historical approach yields three aspects which I draw from. First and foremost, I draw from the human(ist) meanings which have accrued to elephants, in writing, imagery and oral traditions. Second, I triangulate amongst archival sources and contemporary science. Over the past half century, ecologists, biologists and other scientists have greatly advanced understanding of the complex cognitive, social and psychological characteristics of the Asian elephant. Where possible, I compare or substantiate historical elephant behaviour, intentions and personality using contemporary ethology, ecology and Animal Welfare Studies (AWS) (Nance, 2013; Locke, 2013). Third, where the historical records affords it, I acknowledge the individuality of elephants. Each elephant, as every trainer knows, possesses and expresses their own distinct personality. Treating elephants as individuals encourages contextual specificity and guards against the persistent notion that non-human animals can be grouped and understood by pan-species characteristics.

Source selection

In this thesis I examine a range of primary sources: published narratives, memoirs, surveys, diaries, correspondence, government records, newspaper articles, guidebooks, medical manuals, hunting handbooks, language primers, fictional novels, advertisements, pamphlets, postcards, photographs, artifact maps and paintings. I collected data by period, place and vehicle: from the nineteenth century (extending for the railway into the first two decades of the twentieth century), from the Indian subcontinent (including, occasionally, present day Pakistan and Sri Lanka (Ceylon)), and concerning the palanquin, elephant and railway. I found the sources in three forms of archive: online, public and private. I downloaded the majority of published

travel accounts and memoirs online from two websites: archive.org and projectgutenberg.com. Both of these permit open access to out-of-copyright books and other materials. The former is supplied by public and university libraries around the world (mainly the USA) and by Google Books Library Project. The latter is supplied by volunteers. Public archives included: the National Library of Scotland, the University of Edinburgh Library, the Cambridge University Library, Magdalen College (Cambridge) Library, the British Library (Asian and African Studies collection) and the Royal Geographic Society (Foyle Reading Room). I also visited one private archive (Reelig House, by request) and purchased newspaper clippings, magazine articles and post-cards online (mainly for images) from amazon.co.uk and eBay.co.uk.

Of these primary sources, published travel accounts, memoirs and guide-books comprise the majority. I examined 98 from the late eighteenth to early twentieth centuries, concerning travel and residence across the subcontinent. I used this geographic and temporal breadth to identify and compare themes and to analyse vehicular use and meaning over time. My search criteria depended on the vehicle in question. While we know from travel accounts, memoirs and guidebooks that use of the palanquin was common for European overland travel (e.g. Deloche, 1993; Arnold, 2006), description of it beyond perfunctory details is sparse. And while many colonial residents and European travellers rode an elephant during their Indian journey, most heaped their description on the elephant's form and caparison. So I trawled published sources from c.1800-c.1860 from across India for any description of the palanquin or elephant *used as a vehicle*. With such archival, geographic and temporal breadth I gathered sufficient sources. For the palanquin, a vehicle British colonial residents used often and for mundane trips, I relied more on memoirs and guidebooks than travel narratives (e.g. Williamson,

1810; Johnson, 1813, 1818; Stocqueler, 1844; Hull and Mair, 1874; Graham, 1878). In addition, the era of Company rule and prevalence of the dawk network (discussed in Part II) meant most journeys occurred across a relatively bounded swathe of north India between Calcutta and Allahbad. For the elephant, I relied mainly on descriptions of hunting, naturalising and diplomacy (e.g. Hooker, 1854; Eden, 1867; Sanderson, 1879; Ball, 1880; Forsyth, 1889). Like the palanquin, typical European use of the elephant in early to mid nineteenth century meant most journeys happened in the forests of north India, particularly the Rajmahal hills and the Terai (discussed in Part III).

The railway permitted more choice and specificity. Almost every late nineteenth- and early twentieth-century European traveller to India discussed the railways at length. Scholarly study, since the nineteenth century, has focused on technical, political and economic matters, and on the railways which linked northern India from Bombay to Calcutta (Kerr, 2001; Hurd and Kerr, 2012). I therefore chose a less-studied type of railway which I believed might yield important insights into the discourse of tropicality – a hill railway – and which would have a high number of passengers and written accounts. The Calcutta-Darjeeling journey fulfilled these aims: it connected the populous, colonial hub and port city of Calcutta to one of late nineteenth-century India's most visited destinations, and ran from a sea-level delta within the (geographically and discursively defined) tropics into the lower Himalayan hills.

Table 1: Principle sources

Person	Source	Period in / regarding India	Vehicle(s)
Williamson, Thomas	<i>The East India Vade-Mecum</i> (1810)	1779–1815	Palanquin, elephant
Johnson, James	<i>The Influence of Tropical Climates on European Constitutions</i> (1813, 1818)	1803–06	Palanquin
Sherer, Moyle	<i>Sketches of India</i> (1824)	1818–23	Palanquin
Heber, Reginald	<i>Narrative of a Journey Through the Upper Provinces of India</i> (1829)	1824–26	Palanquin, elephant
Roberts, Emma	<i>Scenes and Characteristics of Hindostan, with Sketches of Anglo-Indian Society</i> (1835)	1828–32	Palanquin, elephant
Acland, Charles	<i>A Popular Account of the Manners and Customs of India</i> (1847)	1842–45	Palanquin, elephant
Hooker, Joseph	<i>Himalayan Journals</i> (1854). Also, <i>Life and letters of Sir Joseph Dalton Hooker</i> by L. Huxley (1918)	1848–51	Palanquin, elephant
Majendie, Vivian	<i>Up among the Pandies</i> (1859)	1856–58	Palanquin, railway
Graham, George	<i>Life in the Mofussil</i> (1878)		Palanquin, elephant
Ball, Valentine	<i>Jungle life in India</i> (1880)	1864–81	Elephant, railway
Hull, Edmund, Mair, Ranald	<i>The European in India</i> (1874)	c.1862–80	Palanquin, railway
Twain, Mark	<i>Following the Equator</i> (1897)	1895	Railway
Murray, John (guidebooks)	<i>Handbooks for: India, Burma and Ceylon.</i> Also, <i>Madras and Bombay.</i>	1879, 1881, 1898, 1901, 1911	Elephant, railway
Waddell, Lawrence	<i>Among the Himalayas</i> (1900)	1894–98	Railway
Ronaldshay (Lawrence Dundas)	<i>Lands of the Thunderbolt</i> (1923)	1912–22	Railway

Certain people and works provided more ample, intricate or relevant descriptions of the vehicles and *en route* experiences of Indian climate and landscape; I analysed these accounts to a correspondingly greater extent. Table 1 lists my principal primary sources in chronological order, according to person, publication, period and vehicle. They were written by mainly male, elite or better off British colonial travellers who either resided in India or served in the military. Prior to the 1856-57 'Mutiny' (from Majendie up in Table 1), all were attached, directly or indirectly, to the East India Company, and all were military men or missionaries, save Hooker, a botanist and Roberts, sister in law of a Captain. Socially and politically, they shared middle-class British backgrounds and experienced India during the shift from more open cultural mixing to a more closed, Utilitarian colonial ethos (Collingham, 2001); aesthetically, they came from the (albeit waning) era of the picturesque, romantic and sublime (Archer, 1980; Andrews, 1990; Kennedy, 1996; Arnold, 2004); regarding health, they would have learned about and been treated by 'humoural' or 'environmental determinist' theories of climate and disease (Anderson, 1991; Harrison, 1999). The latter half of the century (from Graham down in Table 1), presents more diversity. These travellers comprise residents and visitors, Britons and Americans, soldiers and doctors, authors and explorers, civilians and governors, authorities on India and new arrivals. Overall, the sources represent the attitudes, encounters and experiences of men and women from across a century of considerable colonial activity in India.

For the palanquin, the soldiers Moyle Sherer and Vivian Majendie, the Reverend Charles Acland and the author Emma Roberts make up my main travellers. Each detailed the device itself, their experiences riding it and their observations from it. Sherer and Majendie went to India on duty; Sherer to the

Madras Presidency from 1818 to 1823 and Majendie to north India for a year during the 'Mutiny'. Spurred by the success of their Indian narratives, both went on to become authors (e.g. Sherer, 1824, 1826, 1827, 1829; Majende, 1867, 1868, 1877). While containing militaristic chauvinism, *Sketches of India* and *Up among the Pandies* capture the potent first impressions, sensations and observations of city-touring by palanquin. Acland was first posted to Assam and then became chaplain of a large district which would now include parts of Bengal, Orissa and Bihar. His narrative, *A Popular Account of the Manners and Customs of India*, consists of letters to his several children in England describing his experiences and observations – scrubbed of personal exhortations by publisher John Murray (Anirban, 2010). His descriptions incline to the ecclesiastical yet cover a range of quotidian topics in lucid detail, such as English-Indian social relations, natives dress, household management and life on the road (as he traversed his district spreading the gospel). Of the four, Roberts seems to have come to India with the most reservation. Unmarried, struggling as a writer and nearly 40 years old, she followed her younger sister Laura and new brother in law, a Company Captain, to Bengal in 1828. "There cannot be", she later wrote,

a more wretched situation than that of a young woman who has been induced to follow the fortunes of a married sister, under the delusive expectation that she will exchange the privations attached to limited means in England for the far-famed luxuries of the East. (Roberts, 1835, 33-34)

Despite her misgivings, India would give Roberts the opportunity to journey independently to India's more remote, 'Romantic' sites. Campsites, regal processions, bazaars and Hindu festivals fuelled her writing (e.g. Roberts, 1841, 1835, 1832). She compiled *Scenes and Characteristics of Hindostan* from articles

she wrote for the Asiatic Society of Calcutta. It remains one of colonial India's most prominent travel narratives. Her descriptions of peripatetic life are at once evocative and readable, and saturated with aesthetic and literary adornments.

The accounts of the Bishop Reginald Heber and two naturalists, Joseph Hooker and Valentine Ball, provided rich descriptions of elephant-borne travel. Heber was a country parson for 16 years, accomplished hymn-writer and travelled in Scandinavia and the Caucasus before going to India to serve as the Anglican Bishop of Calcutta (Hughes, 1986). He spent much of his three years (1823-1826) visiting and ministering to the scattered Anglican communities across northern India and Ceylon. Like Acland, Heber's descriptions evince his evangelical purpose and eye for detail. He catalogued the appearance, training, habits and caretakers of his hired elephants. The botanist Joseph Hooker, son of the botanist and director of the Royal Botanical Gardens, Kew, William Hooker, was raised on travel narratives, an admirer of Alexander von Humboldt and a close friend of Charles Darwin (Endersby, 2008). Hooker received financial support from the British Government and Admiralty and his father's many contacts hosted him across India (Hooker, 1854; Arnold, 2006). The geologist Valentine Ball worked for the Geological Survey of India for 12 years and spent over 20 in India (1880). Each year he left his Calcutta office and conducted fieldwork for 4 to 10 months, mainly regarding coal and metal deposits, across Bengal, Bihar, Orissa and Assam. Hooker and Ball used elephants for vocational purposes. They traversed forests by and collected from on elephant, illustrating the ways this animal extended a traveller's bodily capacities and mediated environmental observation.

For the Calcutta-Darjeeling railway journey, the author Mark Twain, the Governor of Bengal Lord Ronaldshay and the philologist, explorer and Colonel Lawrence Waddell wrote particularly thorough and evocative accounts of their *en route* experience. Twain ‘followed the equator’ on a public speaking tour of Australia, India and South Africa in 1895 to raise money. He was bankrupt, 67 years old and in need of new material (Beidler, 2011, 296-97; Mukherjee, 2011, 393). India, and the Calcutta-Darjeeling journey in particular, seem to have piqued his interest. While his descriptions of Australia and South Africa plod, those of Indian nature, people and colonialism teem with detail and colour. And though he salts his account with liberal satire, few passengers of the era matched his thorough depiction of the train journey itself. In contrast to Twain, Ronaldshay and Waddell were seasoned colonial residents. Ronaldshay governed Bengal for nearly a decade and aspired to a man of belles-lettres (Woods, 2004). Waddell served around India, including diplomatic journeys into Nepal, and had in-depth knowledge of Indian languages and history. Both *Lands of the Thunderbolt* and *Among the Himalayas* display much aesthetic effect. If overworked, Ronaldshay and Waddell’s descriptions of the landscape and journey benefit from familiarity with Bengal’s vegetation, seasons and ethnic make-up.

Guidebooks for travellers and residents from 1810 to 1912 comprised a key primary source. These popular manuals instructed travellers and residents on how to handle quotidian matters of nutrition, safety, transport as well as proper social comportment towards Indians. These volumes also span the nineteenth century, providing technological and cultural comparisons – from early century traditional transport means to widespread use of the railway, and from open social interaction between Europeans and Indians to the more strict social segregation post-‘Mutiny’. These helped me to understand the

knowledge which guided travellers' itineraries, clothing, medical understandings and social orientation.

Thomas Williamson's (1810) *The East India Vade-Mecum* and James Johnson's (1813, 1818) *The Influence of Tropical Climates, More Especially the Climate of India, on European Constitutions* were authoritative guides for Company colonial residents and travellers in the first half of the century. Johnson enumerated the diseases of tropical India and advocated means for avoiding and treating illnesses. Johnson's book was so popular it ran through seven editions over half a century, out-spanning his life (and updated by his friend and associate Ranald Mair until 1876) (Harrison, 1994, 1999). Williamson gave general advice for the "gentlemen intended for the civil, military, or naval service of the honourable East India Company", including voyaging, dress, servants, health and other topics (1810).¹⁶ Williamson served around India for over two decades, rising to Captain, and wrote from familiarity rather than formal education. Johnson made medical pronouncements for all of India – and 'the tropics' – based on three years' residence in Bengal (Arnold, 1998). While only Williamson gave explicit travel advice, both authors concentrate their advice on health, diet and lifestyle habits, implicitly and explicitly covering palanquin and elephant journeying considerations.

Edmund Hull and Ranald Mair's (1874) *The European in India* was similarly informative and authoritative. Hull was a coffee entrepreneur in Ceylon and Mair was a surgeon for the Indian Medical Service. Their *The European in India; or, Anglo-Indian's Vade-Mecum: A Handbook of Useful and Practical Informa-*

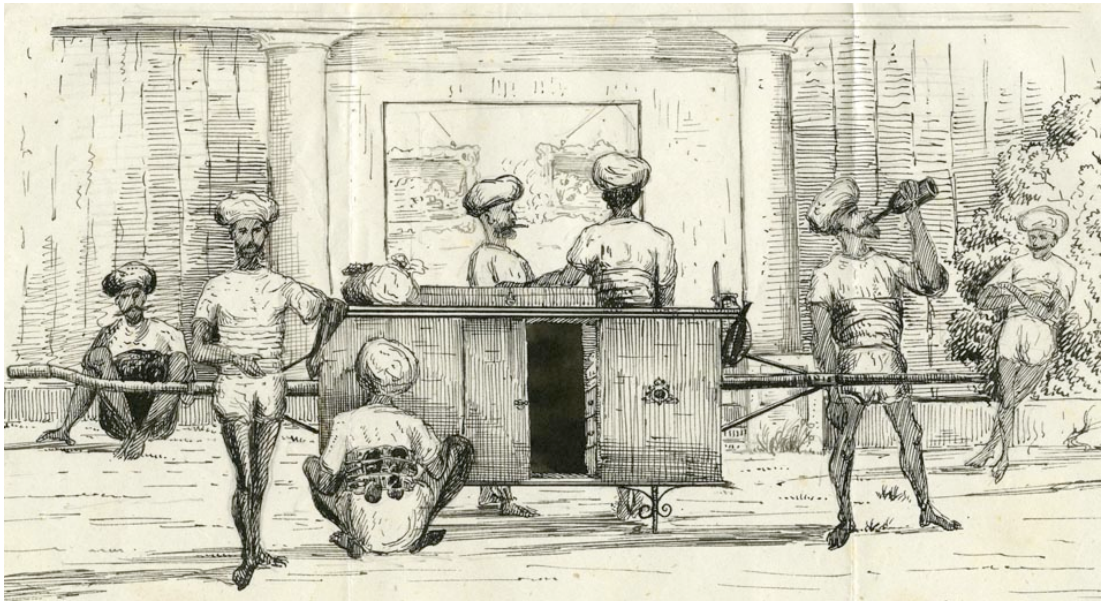
¹⁶ Later nineteenth-century writers, particularly post-'Mutiny' (1857) would denounce Williamson's candid discussion of European men taking Indian wives and mistresses, as well as other Indian habits of dress, comportment and culture.

tion for Those Proceeding to Or Residing in the East Indies, Relating to Outfits, Routes, Time for Departure, Indian Climate and Seasons, Housekeeping, Servants, Etc., Etc., Also an Account of Anglo-Indian Social Customs and Native Character, effectively combined the scope of Williamson and Johnson; Hull wrote the first half, general advice for the resident and visitor, while Mair wrote the second, a republication of his 1870 *Medical Guide for Anglo-Indians*. *The European in India* was particularly useful regarding Westerners' social comportment in and around Indian carriages, platforms and stations, though it is limited to general advice and the personal experiences of Hull. I thus turned to travel guidebooks, particularly those of publisher John Murray (1879, 1881, 1898, 1901, 1911), including three consecutive editions of the popular, subcontinent-wide *India, Burma, and Ceylon*, to understand how the railway shaped European travel in India, as well as to trace how transport advice, norms and standards changed over the latter half of the century.

Part II: The palanquin

Dawk palanquin travel in early nineteenth century India

How were British representatives of the East India Company to survive in and traverse a hot, alien environment as they pushed inland into an area larger than western Europe? The palanquin, both shelter and vehicle, was one answer to this twofold question. "A palanquin, such as the English use", wrote a new arrival, "is a close litter, with pannels, painted and varnished like a carriage. You may stretch yourself at length, or sit half up in them, as on a bed. They have cushions and linings of leather, silk, or chintz; and large sliding doors on both sides, with Venetians" (see Figures 1 and 4) (Sherer, 1824, 10). Around town, two to four bearers carried the palanquin, sometimes with extra men running alongside as reliefs. The particularly wealthy adorned their palanquin with paint, crest and lanterns, and were preceded by a mace bearer and followed by attendants (Figure 3). The palanquin's pace was "neither walking nor running", wrote Fanny Parkes, but "the amble of the biped" (1850, 24). Other Europeans called it "a gentle trot", "a slow ambling trot", "a good trot", a "jog-trot" (Hart, 1906, 96; Heber, 1829, 244; Mattson, 1891, 180; Rousselet, 1882, 4). Most riders referred to it simply as a 'jog'.



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Figure 1: “A Palankeen with its bearers. Madras, Nov 17 , 1814” by Thomas Moxton. This sketch shows bearers waiting outside what is likely a colonial residence or office. While waiting, they tended to sleep in the shade, drink water, cook food and smoke. There are at least seven bearers (pictured), suggesting that the palanquin rider hired sufficient bearers for daily or long-distance travel; four bearers carried while the back-up set ‘rested’ jogging alongside. From the Royal Geographical Society collection.

The roof was made of thin cambered wood and coated with paint, varnish or gum to prevent leaking (Acland, 1847, 85; Sherer, 1824, 10). The most fashionable 'long' or Kharkhariya palanquins – common in Calcutta and for dawk travel – came equipped with removable sun-shades that projected over the doors like an awning (Figure 3). Roofs might also be double-layered, providing a stratum of air to insulate against the sun, or replaced with canvass which was wetted during the hot season (Roberts, 1835, 204). The sides and bottom of the palanquin were typically made of woven cane or bamboo, allowing airflow to the interior (Acland, 1847, 85; Burton, 1851, 252; Majendie, 1859, 349; Martin, 1838, 119; Roberts, 1835, 204; Sherer, 1824, 10; Vincent,

1876, 127). Silk, chintz or muslin might also line the sides (which, while primarily decoration, served crucially as mosquito netting at night).

While well-appointed palanquins had venetian blinds (Acland, 1847, 86; Martin, 1838, 119; Sherer, 1824, 10), sliding doors on either side enabled passengers to allow breeze in and gaze out. For Emma Roberts, the best time of year for travel was after the monsoon when, “The palanquin-doors may be thrown open, and ... every spot is covered with the richest verdure” (1835, 213-14). Before the rains, in the heat of May and June, travellers shut the doors against dust, glare and hot winds. A cooling apparatus, however, was transferred from the bungalow: the tatty. When wetted – by a hired water bearer – any breeze introduced a relatively cool current.

This mobility, shelter and relative comfort, however, ran on human power. Pace proceeded relative to season and (thus) terrain: (including stops) four miles per hour in the cold season, three and a half miles per hour in the hot season and two to three miles per hour during the monsoon (Williamson, 1810, 335). Single stages ranged from 7 to 12 miles but sometimes extended to 40 (Dunlop and Inverarity, 1858, 266; Graham, 1878, 62; Orlich, 1845, 259; Pester, c1900, 120). Over a career, the bamboo pole etched this labour into the bearers' bodies. Their shoulder skin, as one traveller wrote, was “thick and hard like that of a rhinoceros”, while their limbs were hard and sinuous (Graham, 1883, 62). Effectively, the palanquin transferred the strain of mobility in the Indian heat from the traveller inside to the bearers outside.

Around cities and across India, British colonialists and other European travellers reclined in palanquins while a team of Indian shuttled them from point to point. In particular, between Delhi and the Company capital of Calcutta, a

string of cities, towns, stations, barracks, factories and plantations was connected by the dawk network (see Figure 1). Across this swathe of north India, roughly the distance between Paris and Budapest, overland travellers had two main transport options: march or palanquin. A 'march' meant riding a horse, sometimes hired in relays (Stocqueler, 1844, 186-88). Marching, however, could be arduous and subjected travellers to exertion and exposure in the heat. Most military, civil service and independent travellers journeyed by dawk. Literally 'post', the dawk network was a message delivery and palanquin service with staging bungalows and relays of bearers booked through local postmasters. The Company inherited – and expanded – this institution from the Mughals and Marathas, who had inherited the *bārid* (post) system of the Mo-awia empire (Yule and Burnell, 1886, 231). Especially during the dry-season, the dawk was often more direct and reliable (time-wise) than budgerow. Before setting out, the traveller 'laid a dawk': they wrote to postmasters (or village head-men) at relay points along their intended route to request the required number of bearers for each day.¹⁷

Unlike the railway, few written records remain to add up palanquin ridership statistics. But, per-European-capita, the numbers would be considerable. Almost all pre-1860 travel narratives detailed the novelty and discomforts of dawk journeying, which many likened to a roving coffin or portable oven, "horsed by men" (Hooker, 1849, 7). From the mid eighteenth century to the advent of the Indian railways (c1860), this seemingly primitive mode of

¹⁷ "Dawk, To lay a, v. To cause relays of bearers, or horses, to be posted on a road. As regards palanquin bearers this used to be done either through the post-office, or through local chowdries (q-v.) of bearers. During the mutiny of 1857-68, when several young surgeons had arrived in India; whose services were urgently wanted at the front, it is said that the Head of the Department to which they had reported themselves, directed them immediately to 'lay a dawk.' One of them turned back from the door, saying: 'Would you explain. Sir; for you might just as well tell me to lay an egg!'" (Yule and Burnell, 1886, 286).

transport shuttled European travellers around the subcontinent. In 1807 Sir James Mackintosh, Recorder at the Bombay High Court, travelled a thousand miles in one month, from Goa to Madras and back – by palanquin a rate of over 30 miles per day. Two decades later, John Lawrence, future Governor General, travelled 900 miles from Calcutta to Delhi in 18 days – a rate of fifty miles per day (Arnold, 2006, 17). On the eve of the railway, an anonymous traveller went 116 miles in five and a half days (T.D.L., 1857, 68).

Between Calcutta and Benares, the dawk network ran mainly along the Grand Trunk or New Military roads. The anthropologist and historian Bernard Cohn notes the establishment of a standard British traveller/tourist route in the early nineteenth-century; they arrived at Calcutta, went by boat or dawk to Delhi, then further north to the Himalaya or the Punjab, before turning south to Bombay and then possibly to the Malabar coast and Ceylon (Cohn, 1996, 6-7). This 'Indian Grand Tour' structured a consistent series of sites and sights. The Asiatic Lithographic Company published a handbook, *Illustrations of the Roads Throughout Bengal*, with 112 colour maps of common stage districts between Calcutta and Agra. A 'Table of Rates of Travelling by Dawk Bearers' listed 'Estimated Time', 'Stations' (staging bungalows), 'Estimated Distance', 'Bearer Notice' (days in advance required) and 'Amount' (prices) (1828, 3-7). Another table detailed the New Military Road (NMR) route to Benares, including 'No of Stages', (place) 'Names', 'Distances', 'Staging Bungalows' and 'Remarks'.

Thus, equipped with rudimentary knowledge of the dawk, even before the much heralded Indian railway, early nineteenth-century travellers traversed India's interior more easily and speedily than prior to 1800. Significantly, the palanquin also mitigated the Indian climate, addressing the question of sur-

vival in the hot Indian climate. Its enclosed structure shaded the passenger while adapted Indian technologies ventilated the interior: screens and wetted matting, as well as sliding doors and venetian blinds. Moreover, the team of bearers took the brunt of the Indian heat and sun, rather than the rider inside, who lay in comparative leisure. Palanquin dawk travel proceeded relatively quickly because it was not limited by daylight. During the hot and monsoon seasons, night stages were common, allowing the rider to sleep while moving and to avoid exposure in the midday heat. And like the examples of Mackintosh and Lawrence, travellers sometimes proceeded continuously. In his 1844 *Hand-Book of India*, nine years before the railway arrived, Joachim Stocqueler described the palanquin's round the clock movement and shelter. He explained that there were,

but two methods of travelling by land in India, on horseback or in a palanquin. The former method is tedious if only one or two horses be used, and even with relays can only be safely and comfortably prosecuted during the mornings before sunrise, or in the evenings when the sun has much declined, while the latter enables the traveller to pursue his journey unintermittingly throughout the twenty-four hours. (Stocqueler, 1844, 187)

Most early nineteenth-century dawk travel proceeded at 10 to 15 miles per day, allowing travellers to observe the passing country, with frequent stops for water, rest, provisions and sight-seeing at local temples and ruins. Some travellers disliked the palanquin's vantage. The botanist Joseph Hooker complained that "you pass plants and cannot stop to gather them; trees and don't know what they are; houses, temples, and objects strange to the traveller's eye, and have no one to teach where and what they may be" (Hooker, 1849, 7). For others, like Emma Roberts, dawk travel furnished chances to

halt and appreciate India's more remote, picturesque countryside. The best time to travel was just after the monsoon:

The palanquin-doors may be thrown open, and the various beauties of the jungles display themselves to view; every spot is covered with the richest verdure, and creepers of luxuriant growth, studded with myriads of stars, fling their bright festoons from tree to tree. Those beautiful little mosques and pagodas, which in every part of India embellish the landscape, look like gems as they rise from the soft green turf which surrounds them... (Roberts, 1835, 218-19)

For much of the early nineteenth century palanquins also taxied colonialists around Indian cities. Those colonialists who could afford it kept a palanquin and team of bearers, like some Europeans kept a horse and carriage: for quotidian urban transport. Like a carriage, the palanquin signified social status – “an absolutely necessary vehicle for every person pretending to the character of a gentleman” (Anon, 1821, 33; see also Spear, 1963, 58-61, 100). Some British residents in Madras spent a quarter of their salary on bearers (Moses, 1853, 182-83). In addition, palanquins and bearers often awaited the arrival of European ships. Thus many travellers took their first impressions of Indian cities and vegetation from a reclined, horizontal view out of a moving aperture.

Landscape and climate from a roving box

Driver and Martins devote their collection *Tropical Visions in an Age of Empire*, to “the ways in which tropical places are encountered and experienced” and “the significance of travel for the process of producing knowledge about

these places" (2005, 3). Conceptually and methodologically, they criticise two risks of 'projection' models of colonial discourse analysis, which conceive of tropical images as pre-formed, exaggerate their coherence and consistency, and, in treating tropical landscapes screens, downplay Europe as itself a discursive foil (of temperate nature and culture). Instead of projections, they suggest that European interpretations of tropical landscapes be understood as 'transactions'. This metaphor, they argue, encourages an understanding of such interpretations which gives more agency and autonomy to the environment interpreted, "as a living space of encounter and exchange" (Driver and Martins, 2005, 5). Moreover, because dwelling within tropical nature bore so strongly on its depiction, they frame their collection around the question of how "being in the tropics affect[ed] one's knowledge of it" (ibid, 5).

Like other works in the subfield of tropicality, Driver and Martin's collection extends historically and culturally specific understandings of tropical nature (Arnold, 2006, 1996; Bowd and Clayton, 2005; Clayton, 2013; Driver, 2004). Yet, despite the aims and question posed, the introduction and chapters that follow overlook a basic and defining aspect of travel: en route vehicular experience. This is largely because the authors take people, publications and places as the primary units of analysis. Vehicles and mobility appear but almost entirely as context. In this chapter I participate in the same scholarly endeavour: to understand how tropical travel shaped experience, understanding and depiction. I also foreground the role of dwelling to interpretation, the agency and autonomy of non-humans and lived experience. I do so, however, through the mobilities of one vehicle: the palanquin. I explore how the palanquin mediated travellers' experiences of the Indian landscape and climate, and how the palanquin served as a vessel of social relations.

Taking a vehicle as the unit of analysis foregrounds questions of structure, schedule and motion. For example, the palanquin's sheltering structure and sliding door protected the traveller from the Indian climate and allowed gazing at the landscapes which jogged by. Travellers' comfort and convenience, however, rested on their effective captivity and reliance on bearers' cooperation. Palanquin travel often proceeded at night, reordering travellers' diurnal rhythm and channeling observation to evening, night and early morning. Many travellers saw their travelling team and topography by darkness and firelight. And the palanquin's relatively sedate pace at once set the landscape in motion, choreographing vision as dynamic linear sequence, yet did so at a nearly walking pace, allowing proximity and contemplation.

In what follows I consider three ways that the palanquin's distinctive mobility and vehicular characteristics mediated travellers' experience of the Indian landscape and climate. I begin chronologically and thematically: with early nineteenth-century travellers' arrival to India and initial city touring. I argue that the first impressions caught from the palanquin's roving, reclined viewpoint infused travellers' descriptions of the spaces and landscapes of Madras and Calcutta. Landscape, from this mobile perspective, was not a static viewpoint but the product of vehicular motion, varying vantages and sequential 'scenes'.

Next, in Section 5, I extend the study of landscape past its typical diurnal confines by examining how the practice of night palanquin travel led travellers to witness Indian landscapes by darkness, starlight and torchlight. This darkness and illumination gave the imagination leeway and psychologically and optically altered visual perception. Aesthetically and emotionally, the contrast of gloom and illumination increased the thrill, intrigue and beauty

of landscapes, augmenting travellers' interpretations of romanticism and wildness. Furthermore, the night landscapes dawn palanquin travellers witnessed was, in addition to the result of projective 'ways of seeing', a collective and co-constituted relation to which the wider human and non-human camp entourage contributed. I also explore how darkness transformed tropical landscape aesthetics by diminishing the perceivable colour spectrum.

In Section 6 I turn to the palanquin's socio-political relations. For British residents and travellers in India, the heat was not just a nuisance but a synonym for the apparent hostility of a tropical climate. While British notions of masculinity and integrity framed the palanquin as an unwholesome 'Asiatic effeminacy', palanquin travel provided a solution to the twofold question of survival and mobility in the India climate (Johnson, 1818; Williamson, 1810). Effectively, palanquin travel outsourced the strain and suffering of India's climate from British travellers to the bearers, who bore the brunt of exertion and exposure to the Indian climate and terrain. At the same time, however, the palanquin's mobility left travellers vulnerable. Between towns, villages and staging bungalows, bearers exploited the travellers' geographical isolation and social inexperience through 'weapons of the weak', such as avoidance, 'foot-dragging', humour, striking and desertion (Scott, 1990, xi). Dawn travel was a mobile 'site' in which the dominant (travellers) and the weak (bearers) were caught in a contested web of social relations.

Arrival to India and mobile prose: 'A Tour of inspection by palkee'¹⁸

In the early nineteenth century, a European travellers' first ride in a palanquin often coincided with their arrival to India, and for most this came at Madras. The voyage had been a long one: from three to eight months.¹⁹ The ship typically set sail from Gravesend, stopped in Madeira while the captain picked up pipes of the Honourable East India Company's port, spent a week or two restocking provisions at the Cape of South Africa and anchored again at Trincomalee on Ceylon for fresh water. Finally, restless passengers rounded Ceylon and approached the Coromandel coast. In clear weather they scanned above the breakers a series of European settlements: Dutch Negapatam tidily arranged with squares and canals, Danish Tranquebar, French Pondicherry and English Fort St. David. Finally, St. Thomas Mount, the Glastonbury of Indian Christianity, swung into view, followed by the gleaming white houses and offices of Madras's Fort St. George. Here, the ship dropped anchor in open water and, after being tossed in cramped quarters for months, passengers hauled their trunks on deck. Immediately a fleet of *masoolah* boats (small catamarans) put off from shore, some bearing merchants to contact the captain concerning his cargo, but most to ferry passengers to shore. Some newcomers mistook the serene faces and flowing garments of Hindu merchants for women, and then discovered their error upon flirtation (Spear, 1963, 43). All noted the near nakedness of the boatmen,

¹⁸ Palanquin, palankeen and, more commonly, palki or palkee, were all used interchangeably to signify the palanquin.

¹⁹ Prevailing winds meant that it was actually faster to track across the Indian ocean from the horn of Africa to the tip of the Indian peninsula, rather than at Bombay, farther north along the west coast.

though some found their dark skin the equivalent of a covering (ibid, 43). Then they clambered down into a catamaran and were rowed to shore. On the beach the traveller typically had little time to digest the cosmopolitan crowd that beset him. These were mostly dubashes (stewards), who surrounded the European to clamour for appointment. The newcomer spent the next quarter to half an hour arbitrating between one animated unknown and the next.

By 1800 the city of Madras was known for Company trade and power. On-board, tales would have been traded of Hyder Ali and Tipu Sultan (south Indian equivalents of the Kaiser and the Prussians) and of the Carnatic invasions of 1768 and 1780 when the Madras settlements burnt to the ground (Spear, 1963, 44). Stories would have also passed of the extravagance and pomp of the 'Nabobs', the Company employees who accrued great prosperity and political power (Collingham, 2001; Spear, 1963). Their wealth could be immense. Part of the fortune amassed by Elihu Yale, British Governor of Madras for five years, funded the ivy league university of his name (Love, 1913, 490). The city itself comprised White Town, Black Town and surrounding settlements. Barracks, factories and houses made up Fort St George, which was surrounded by a citadel. Muslim and Hindu merchants, workers and families, in turn, established an adjacent settlement, also surrounded by a wall – Black Town. Portuguese and Armenian settlers lived in or around black towns and the docks, betraying their 'mixed race' status. Many administrators and merchants escaped the crowded centre by building mansions surrounded by gardens outside the city. These 'garden houses' had windows

protected by Venetian blinds, were fronted by porticoes, surrounded by a 'piazzas' with classical pillars and finished in *chunam* (Spear, 1963, 43-47).²⁰

In July 1818, after three months and ten days, army officer Moyle Sherer spotted on the shoreline a "thick jungle of bright verdure ... feathery coconuts, and tall palms" (Sherer, 1824, 1). Sherer's catamaran lodged far up the sand by a violent surf, he stepped overboard into a throng of dubashes, servants and bearers "so diversified in costume, complexion, and feature. ... How changed the scene! How great the contrast!" (ibid, 3). The din of unknown tongues nearly drowned out the crashing waves (ibid, 3). Some travellers found palanquins on the beach for hire (see Figure 1 for a contemporary image of such a palanquin). Sherer and his regiment marched the 13 miles inland to Poonamallee station. On the way inland Sherer witnessed broad, drooping plantain fronds, curving coconut trunks, slim areca palms, aerial drop-roots of the banyan and a panoply of colourful birds. "These, and more than I can name, were the novelties we looked upon" (ibid, 7).

Sherer was an aspiring author and wrote with prose which addressed the reader directly and affectively. On the title page to his *Sketches of India*, Sherer devoted the work to "Fire-Side Travellers At-Home". As an officer with no formal scientific training, he could not furnish the information of journals or learned publications. Nor did he intend to (Sherer, 1824, iiv). But he hoped to satiate "the imagination of the general Reader, who would fain follow with his mind's eye a friend or relative to these distant shores" (ibid, iii). He closed his introduction by dedicating the volume, "To any one who will venture on

²⁰ Chunam is a plaster compound made from lime powder and sea-shells.

the sacrifice of half a winter's evening to ride a few marches with me, pass a day in my tent, or take a seat in my budgerow" (ibid, iv).

The words follow, ride, march, tent, seat and budgerow, indicate itinerancy and vehicular movement. Mobility saturates Sherer's description of Madras, which he conducted in a palanquin. Path and pace mediated his encounter with the city and its outskirts. In contrast to his 13 mile march, first drenched in sweat and then rain, Sherer was jogged in this new conveyance down wide avenues, through alleyways and markets, and around black town. While the palanquin did not reconfigure perception of time and space like the railway or automobile, it did choreograph the thoroughfares, structures and citizens it ambled past (e.g. Merriman, 2006; Schivelbusch, 1986). Sherer begged the reader to accompany him "for a hasty look at Madras, in my palanquin". He then proceeds for 14 pages to lead the reader through the streets of Madras using a kind of 'live' or 'locomotive' prose. He prefaced this roving depiction with a caveat:

The few pictures I will now attempt to sketch, are designed to assist you, reader, in accompanying me to such places and scenes as I may carry you to look upon hereafter, when I shall hope to excite in your bosom some portion of the interest I felt in them myself. An interest which, if not altogether destroyed, would be much weakened by continual interruptions. For the rambling and familiar style which I have chosen for this portraiture, I crave your patient indulgence. (Sherer, 1824, 10-11)

His description mimics the speed and cadence of the mobile encounter. He recounts 'types' of Indian and European person, to structures and vehicles seen en route, over 19 paragraphs at an average of 75 words each (Appendix 1). His word-pictures canter along, describing objects in passing, rather than

'stopping' to scrutinise or explain. He rhetorically points to sights by beginning each paragraph with a 'this', a 'that' or a 'these': "These poor wretches, ... This haughty-looking man, ... This low, curiously-carved car, ... These horsemen ... These well-appointed black soldiers ... That officer ... " (ibid, 11-14). Few travel narratives of the era employed such roving-eye prose. Sherer narrates at a rhythm which stirs the reader. Late nineteenth-century authors also sped up syntax to invoke the railway's velocity (Schivelbusch, 1986). For example, as Charles Dickens' 'idle apprentices' approached the London city limits, "The pastoral country darkened, became coaly, became smoky, became infernal, got better, got worse, improved again, grew rugged, turned romantic ... " (Dickens, 1896, 326). Sherer prefigures such mobile prose yet at the pace of bearers' footfalls rather than spinning iron wheels. His staccato series of paragraphs sets the streets of Madras in motion, like a parade of objects flowing toward the reader. His vision, and thus the reader's vision, forge ahead fluidly and sequentially. It is not the dramatic acceleration or panoramic 'replenishment' of a train window. Yet the palanquin, like a railway – though at a much more 'human speed' – sets the landscape in motion. Sherer also steers the mind's eye while sustaining a rhetorical clip. This procession of paragraphs meanders along his circuitous route, first through the crowded central market streets of 'black town' and then outwards up the broad, tree-lined avenue towards Fort St. George and the 'Garden Houses' kept by merchants and administrators outside the city limits.

Did the palanquin's motion subconsciously mediate his prose? Or did Sherer *only* retrospectively choose his mobile description? Certainly he – and his editors and publishers – chose language fit for travel narrative print (Withers and Keighren, 2011). In either case, the result is motion-imbued metrical structure. Moreover, the latter – pure representation – still indicates that

vehicular mobility determined description: vehicular motion mediated the experience of observing the landscape, and Sherer then sought a means to convey his moving viewpoint. In a sense, the palanquin's motion compelled Sherer to devise a representational mode which conveyed the consciousness of his encounter with the urban landscape; by descriptively jogging along he maintained fidelity to phenomenological experience.

Sherer's Madras cityscape description is a landscape of the route and the road (e.g. Hvattum et al., 2011). He depicts the streets, urban structures and vehicles. First come pedestrians and vehicles: porters, merchants, bullock-drawn carriages, horses and riders. Then buildings, mansions and monuments, chunam-polished columns, verandahs and walls, European-style paddocks with their rows of trees, shrubs and flowers, and the grandstand equipped racecourse. As with other Europeans, Sherer emphasises the juxtaposition of 'fine' and orderly European structures with the seeming chaos and squalor of Indian structures. It is the proximity which fascinates him. The "meanly built, noisy, and dirty" 'black town' collocates with "many large, fine houses belonging to merchants and shop-keepers", the "strong, handsome, well armed" Company fort, a "plain neat church", and even a white marble statue of Lord Cornwallis in the square outside the government offices.

From a palanquin door, the road itself was landscape. Sherer accords a paragraph to The Mount Road, a "favourite drive" for European residents. This "grand road ... not exceeded by many in Europe", led from Fort St. George, near Madras city centre, to St. Thomas's mount, nine miles distant (Sherer, 1824, 17). It was paved with a Macadam-like packed gravel, drained by ditches and culverts, and trees lined its entire length. It passed over the

Marmalong Bridge, displayed road signs at some junctions and, along with the city of Madras, was policed (Barrow and Macartney, 1807). Sherer's descriptions emanate from this geographical and descriptive baseline. A mile from Fort St George gates sits Government House; three miles further stands a cenotaph for Lord Cornwallis', "and on the sweep round this monument [English style carriages] slowly circle as in the gay ring in Hyde Park at home"; another three miles on lies the racecourse; two more miles, the foot of St Thomas's Mount and the Garden Houses. Sherer's interest in The Mount Road is understandable. At this time, John Macadam had just refined his aggregate layer technology around Bristol. Few paved roads existed in India. Mughal rulers maintained *kaccā* (packed gravel) roads on some north Indian trade-routes and *pakkā* (brick-paved) roads on the approach to cities (Deloche, 1993, 100-04). The larger Bengal thoroughfares were *pakkā* and lined with shade-affording banyans, hand-dug wells and provisions vendors (Balthazar, 1808). Most Indian roads c.1820, however, were trodden pathways subject to pronounced seasonal variations which determined the pace and progress – or, delay and difficulty – of every European traveller. The main urban streets and esplanades of Bombay, Delhi and Calcutta remained foot and hoof-flattened clay, dusty or marshy according to the season (Deloche, 1993, 99-104). Thus a paved, drained, European-style boulevard complete with a mix of fellow Europeans and exotic Indians travelling by a panoply of vehicles was itself a spectacle.

Phenomenologically and visually, Sherer was caught up with, participating in and witnessing from the moving milieu of the street. Like an arrived railway passenger at a metropolitan station, injected into the hubbub of hissing steam, jostling crowds, darting glances and shouting partners, the motion of Sherer's palanquin is mirrored by the rhythms of daily street life: horsemen

cantering with their grooms jogging behind, European style carriages ridden by nawabs, coolies (porters) carrying sacks, women balancing brass water vessels on their heads, a Jesuit monk stepping out of his palanquin (c.f. Löfgren, 2008, 335). Vehicular transit also furnishes a mix of viewpoints. Sherer swaps between close-ups and long-shots, emulating the to and fro of propinquity and panorama as he drifts through the relatively open and closed spaces of inner city and outer suburban Madras. He starts with individuals and bodies at close range: eye colour, complexion and hair style, labourers' meagre rags and turbans, soldiers' ornamented breeches, boots and saddlery, and the "jealously, hatred, and scorn" read off the faces of merchants in the Tripilcane Bazaar. Then he transitions to expansive views down wide avenues and up at the spires of St John's and the colonnade of government house, situated on the Choultry plain, which "as seen from a considerable distance, has a noble imposing appearance" (ibid, 17).

Another arrival, another tour: the 'City of Palaces'

Those travellers who did not disembark at Calcutta returned after a few days by massolah boat to their vessel and continued up India's east coast towards the Ganges delta. Here, they transferred to a budgerow and proceeded north up the Hoogly river between sandbanks and mangroves. Few villages dotted the banks; at night, travellers heard the howl of jackals, the roar of tigers and the high-pitched drone of mosquitoes through the thick hot air (Spear, 1963, 48-52). Travellers hoping for the tropical exuberance they had read about or glimpsed on the coasts of Ceylon and Madras might also get discouraged. As the botanist Joseph Hooker steamed towards Calcutta, the tidal mangrove forests "exhibit[ed] no tropical luxuriance, and were, in this respect, exceed-

ingly disappointing" (Hooker, 1854, 49). For minds filled with notions of the 'City of Palaces', this protracted arrival could disappoint or exasperate. Yet as travellers entered Garden Reach, a wealthy suburb south of the city, deserted riverbanks gave way to a line of white mansions with porticoes, verandas and gardens. Then came the broad docks and ramparts of Fort William and a mass of white-washed buildings.

On landing at Calcutta the traveller encountered roughly the same scene as at Madras, though on a larger scale. Dubashes, servants and bearers crowded the ghat, waiting to set upon the arrivals.²¹ Many newcomers found a palanquin awaiting them. An ink and watercolour drawing by James Prinsep gives an idea of "The landing of a griffin at Calcutta" in 1822 (Figure 2).²² His top hat, chemise, dress coat, long trousers and leather shoes, appropriate at London or Plymouth, is ill-suited for climate and terrain, and indicates why many Europeans found the Indian sun so hot. "Palanquins, already arranged on the beach for our arrival", wrote one traveller, "proved a most welcome retreat from the sun" (Anon, 1821, 7). Several bearers unload his trunks and his person, while a chattah (parasol) holder waits ready to shade him for the few meters between his budgerow and the palanquin, to which a tout already beckons. Thus literally before the 'griffin' has stepped foot on Indian soil he is borne by bearers.

This reception could overwhelm:

²¹ A flight of steps leading down to a river or water tank.

²² A 'griffin' or 'griff' (adj. 'griffish') was slang for a "Johnny Newcome in the East" (D'Oyly, 1828), or "One newly arrived in India, and unaccustomed to Indian ways and peculiarities" (Yule and Burnell, 1886, 303). 'Griffinage' was said to last one year.

... crowding and jostling each other most unceremoniously are ranks of palankeens, so closely wedged together as to form an impenetrable barrier to the passenger who steps out of a boat for the first time. His attention is called by fifty voices at the same moment to their respective conveyances; ... Amidst this din and confusion, this Babel of tongues, this scolding of dingy wallahs, hustling of palankeen bearers, pushing of chatta holders, scorching heat of the sun, screaming of hawks, clouds of dust, and flavour of betel-nut, the stranger for the time sets his foot ashore at Calcutta. (Hutchisson, 1883, 39)



Figure 2: "The landing of a griffin at Calcutta on 30 Sept 1822" (Prinsep, 1878, 84).

From here, if the traveller possessed a letter of introduction, the *sine qua non* of polite European society, he proceeded directly to a house or cantonment. If they did not, or had lost it on the voyage out, they proceeded to a tavern or inn on the outskirts of 'black town'. In either case, the traveller often began their Indian career or sojourn with a palanquin ride. A similar routine greeted the European traveller at Bombay, the then smallest of the three Pres-

idencies. "Instead of the familiar London cab or omnibus, fancy a goodly muster of ... palanquins, with their copper-faced bearers, lining the quay, these fellows continually shouting Palki Sahib? Palki Sahib?" (Landon, 1857, 26). After the waiting palanquins and "swarthy servants" pressed around, and arbitration finished, the European was "borne away to his hotel or his friend's house" (Vigne, 1842, 22).

Second Lieutenant Vivian Majendie sailed to India to serve in the 1857 Indian 'Mutiny'. After a brief respite inside the East India Company military barracks, palanquin bearers carried Majendie and a companion set out on a "Tour of inspection in a Palkee" (Majendie, 1859, 47). Like Captain Moyle Sherer, Majendie enumerated the city's faces, garments, buildings and neighbourhoods. And like Sherer, he used mobile prose to recount his first impressions of urban India. He began abruptly and informally:

Suppose we get into a palanquin, and in this very peculiar and Oriental conveyance enter the 'City of Palaces,' and form an opinion of its interior. Away we go, our two palanquins abreast—jog, jog, jog,—grunt, grunt, grunt, from the bearers, across the Chowringhee; jog, jog, jog – and in a very few minutes, as the clowns say at Christmas, 'Here we are!'" (ibid, 47)²³

Majendie's repetition mimics the tempo and tactility of a palanquin ride. He does not merely describe the feeling; he recreates it. He onomatopoeically effects the sound, motion and sensation: footfalls and chanting, bounce and sway. Some found the palanquin's motion slow and jolting, "neither violent nor unpleasant" yet "incessant, ... and renders it impossible to draw, and not very convenient to read, except a large print" (Blanchard, 1867, 40; Heber,

²³ Chowringhee was, and remains, main thoroughfare in Calcutta.

1829, 245). Others found the “cradle-like motion” enjoyable or even soporific (Mundy, 1832, 143; Orlich, 1845, 42). Bearers chanted while they ran, mainly to coordinate their step and for the front pair to warn of obstacles, as well as to encourage each other and praise or taunt the passenger (Acland, 1847, 127). Some British travellers disparaged this 'grunt' or “groaning chant” (Burton, 1851, 251), while an American and Frenchman termed it more favourably as a song, hum or chorus (Rousselet, 1882, 65; Vincent, 1876, 127). Thus as riders bobbed along inside, a monotonous refrain matched the rhythmic sway and beat of eight bare, jogging feet.

Like Sherer in Madras, the path and motion of Majendie's palanquin mediated his description. His paragraphs meander around town, 'pausing' to describe scenes and extemporise on issues of governance, religion and morals. Compared to Madras, the European and 'native' quarters of Calcutta were just as socially but less geographically distinct. Majendie begins by Fort Williams, Government House, Writers' Buildings and St John's in Calcutta's urban core. He then describes 'Black Town' which interwove with and sprawled around this centre. Houses made of mud, dung or bamboo leaned against tall stately homes or lined the flat dirt roads between detached bungalows and multistoreyed merchant houses. In Majendie's terms, hovels and “vagabondish cabins” ‘jostled’ and ‘elbowed’ stately houses; an “indiscriminate mixture of splendour and indigence” (ibid, 47-48). Then he came to squalid narrow slums, low flimsy canopies, “impurities, and fevers, and vile stenches”, a heaving stream of people “which floods these living sewers”, and an ambient cacophony of entreaties, chants and bartering. Majendie's denigration of Indian poverty is standard fair for a colonial travel narrative (Pratt, 1992). Paradoxically, perhaps, Majendie denigrated Europeans as much as Indians. Portuguese, Armenians and a range (mainly British) sailors,

tavern keepers, orphans, prostitutes and other 'low' types comprised from half to two thirds of Calcutta's (overwhelmingly unrecorded) European population (Fischer-Tine, 2009; Spear, 1963). Thus low caste Brits and other 'white subalterns' resided in the shanties and alleys of 'black town' which Majendie dubbed living sewers (see Fischer-Tine, 2009).

Seven pages after he drew the reader inside his vehicle – “suppose we get inside a palanquin” – he reminds them of motion's continued presence in his description. He begins his two final paragraphs with: “At length we pass the 'Burning Ghat'” and “For the last half-hour our path has been through streets...” (ibid, 52-53). Each leads the reader rhetorically and geographically through the city. If the reader can visualise the din and grime with which he has depicted 'black town', [sic] “he will form a tolerably correct idea of the native portion of Calcutta”. 'Here' Majendie brings his 'tour of inspection' full circle:

But see! A little further on, and as our palanquin turns a corner, the beautiful buildings in the neighbourhood of Government House, ... spreads out before us, and we are once more sunning ourselves in the bright noontide of civilization and refinement (ibid, 53-54)

Popular notions of European superiority and Majendie's own lack of familiarity with India guided his appraisal. Like Sherer's account, motion shaped Majendie's images. He describes Calcutta circuitously and immersively, foregrounding the sensations of motion and the sequence of transition. Forward movement simultaneously unfurls and occludes, leaving behind and presenting scenery, which stokes emotional and aesthetic responses (e.g. Gibson, 1979). As Majendie emerges from the crowded alleyways into the spacious,

white-walled, high-spired cityscape of Company Calcutta, the reader senses his flow, transition and arrival. Though haughty, his perspective is not the commanding or possessive gaze of a promontory. Nor does it resemble the aimed and framed photographic capture (Ryan, 1998). Rather, it is an injection into urban India. Like walking or riding a bicycle, the motion, structure and posture of a palanquin occasioned an ambulatory, immersive and almost tactile mode of urban landscape encounter (Edensor, 2000; Spinney, 2006).

If a train carriage raised, separated and sped past, the palanquin inserted the traveller at a lope. Early highway engineers noted the 'plunging perspective' of the automobile window-shield at speed as it traversed undulations and curves (Merriman, 2006, 78-79) and Wolfgang Schivelbusch has described the flowing, lateral 'panoramic' vision of railway travel (1986). The palanquin's structure and motion effected what might be termed circulatory vision; it introduced and escorted while delimiting a reclining diagonal vantage. Flow and proximity predominated while transition in, around and outside of town furnished a range of prospects. As with the railroad and highway, the palanquin's path 'gathered the land': it brought together a suite of city-wide objects and scenes into travellers' locomotive perspective, thus into a simultaneous experience and spatial unit; what Sherer dubbed "a hasty tour" (e.g. Bishop, 2002). Like eighteenth-century European garden design theory and William Gilpin's principles of the picturesque travel, Sherer's tour can be considered as a perceptual participation in the landscape: it formed and transformed his surroundings (Hvattum et al., 2011, 1-2; Watelet, 2003).

Tim Ingold argues that people form their knowledge of the landscape in their travel through it. Equally, Ingold's assertion could be inverted: ignorance originates from where one does not travel. While expansive and intimate, the

palanquin's pathway necessarily omitted what lay beyond the Garden House suburbs – and all the streets it did not jog down. Both Sherer and Majendie omit the townships, cantonments, pasturelands and forests that lay beyond their palanquin city tours. Their roving viewpoints therefore display the situated and partial nature of colonial vision. Further, these authors display forms of landscape encounter and depiction in contrast with the prototypical promontory view of late nineteenth-century colonial travel narratives critiqued by Pratt (1992) and Gregory (2001). Rather than high, stationary and comprehensive, their views are submerged, fleeting and extemporary. Rather than distance or indifference, Sherer and Majendie's palanquin passages foreground proximity, flow and sensation.

Henri Bergson has written of the tendency “to think of motion as if it were made of bits of stillness, ... [and then] reconstruct it with the help of moments of stillness” (quoted in Conan, 2003, 1). Yet such a mindset elides the characteristics of vision in motion (Büscher, 2006, 4). People “see as they move, not just in the intervals between movements” and “knowledge of the environment undergoes continuous formation in the course of moving about it” (Ingold, 2000, 226, 230). Interpretation of landscape is not merely the landscape observed but the motion, the vantages and the sequence of that observation. Sherer and Majendie's accounts suggest that representation, too, is forged in the passage from place to place. The French painter and garden connoisseur Claude-Henri Watelet wrote that, “nothing is more like the progress of our thoughts than these paths men create in the spacious countryside ... The person viewing picturesque scenes ... changes their organization by changing his location” (Watelet, 2003, 26, 37). While Watelet made a metaphorical cognition-pathway comparison, he nonetheless reminds that physical movement influences perception and the appearance of surround-

ings. Sherer and Majendie's palanquin tours orchestrated the urban landscapes, determining how and in what order sights were seen, thus shaping aesthetic impression and record.

Either instructed or improvising, Majendie used his palanquin's pace to barter. Entering the bazaar, "one's palanquin is beset by a host of panting, shouting vendors of all descriptions". Yet Majendie rode with palanquin doors open. The palanquin, though able to enclose the passenger, likewise exposed them to the proximity and hustle of a market. Merchants jogged beside him on either side to tout their wares. Though Majendie found himself assailed at close range he found that,

a great facility is afforded the buyer, by keeping the seller, who is running alongside, in conversation until he is completely 'blown,' and then offering him half the price demanded; when, being at his last gasp, he generally closes the bargain (Majendie, 1859, 49-50)

Among other things, Majendie's negotiation underlines the reciprocity of a travellers' gaze. He and Sherer wrote as if the locus of observation lay with them. But the context of urban arrival and snippets of their descriptions hint at how the palanquin rendered the European traveller a visual object – and an economic resource. It began with disembarkation. As newcomers stared over the waves at the Coromandel coast or across the flat brown Hoogly river, dubashes, bearers and others on shore had already spotted them via mizzen-masts and foresails. The masoolah boats and throng of dubashes that greeted newcomers confirm this. The multiplying ranks of Europeans – and their incomes – were marked targets. By 1820, the overwhelmingly Indian populations of Madras and Calcutta were 150,000 and 400,000 respectively (Spear, 1963). Every pair of European eyes was outnumbered by thousands

of local pairs. An ornamented, aristocratic vehicle carried by eight chanting bearers, sometimes in matching livery and preceded by a mace bearer or drum-beaters, made a conspicuous sight. Like European carriages and white columns, Europeans constituted distinctive urban sights.

Unlike a car or train, the palanquin's speed did not outpace eye-contact. Sherer wrote that the predominantly muslim merchants of Madras's 'Black Town' wore looks of "jealously, hatred, and scorn" (Sherer, 1824, 19). While these shop-keepers' feelings remain unknowable, that Sherer saw their sentiment indicates mutual visual awareness, at least, and, at most, a reciprocated stare. Rather than spoiling his self-image, these local glowers filled him with national and military pride. From 1743-1763 the Company maneuvered politically and martially in three Carnatic Wars against the Mughals and the French to take trading and territorial control of the Coromandel coast (Doddwell, 1858, 604-17). As a representative of English colonial clout and Company military prowess, Sherer believed these disdainful looks stemmed from vexation over their deposed nawab, stripped of all but pomp. He reckoned, furthermore, that these muslims "[shrank] from the mockery" of "the royal salutes so repeatedly fired from the British fort" (ibid, 19). Sherer channeled his gaze through local gazes and back – complementarily – upon his own self image (Gillespie, 2006, 358).

The palanquin's door constitutes the focal point of this mutual observation. When closed, the European traveller lay in a pocket of privacy. Indeed, wealthy Muslim and Hindu wives rode palanquins for the mobile and public seclusion they afforded. On the road, many travellers treated their palanquin like a bedroom, relaxing half-dressed or retreating inside when irked or ill (e.g. Heber, 1829, 316; Hooker, 1854, 51; Sleeman, 1844, 294). But such privacy

was tenuous. “Without a numerous train of attendants”, wrote Emma Roberts, Europeans sometimes had their palanquin doors “rudely opened” by curious bystanders (Roberts, 1835, 146). Bearers might, at a relay change, slide the door back to petition for *bucksheesh* (gratuities), possibly during the night with torch in hand (Hooker, 1854, 16). Like any aperture, the sliding doors worked both ways. Gaston Bachelard describes the process mutual surveillance sparked when a lantern is lit at night; the light that enables a seer to see renders their self visible (see Schivelbusch, 1998, 96). A painting (Figure 3) by Francois Balthazar, a Flemish artist, illustrates how a European's curious pale skin and unusual garments would have 'shone' with exoticity. Partially visible, partially concealed, the open palanquin door effected a kind of mobile display case; Sherer and Majendie were exotic samples of foreign difference marched around for all to see.



Figure 3: “Long Palanquin” (Balthazar, 1808, 41).

Flânerie by palanquin?

In her *The Art of Taking a Walk*, Anke Gleber writes that, “*flânerie* predates many of its assumed origins” (Gleber, 1999, 6). The beginnings of such urban peripatetic expression can be found long before Walter Benjamin's early twentieth-century reflections and even before Charles Baudelaire's mid nineteenth-century poetry of the street and the crowd (ibid, 3-8). In certain ways, Sherer and Majendie's palanquin city tours recall the *flâneur* and *flânerie*. Neither traveller sought to decelerate their pace of perception, nor did they seek to reach Baudelairian levels of passionate spectatorship (Pinder, 2009, 256). But both meandered through metropolitan public spaces and sought to read off the streets, crowds and architecture the wider characteristics of native and Company India. They toured, explored, shopped, surveyed. They slipped down pedestrian thoroughfares and markets, observed the commodities, facades and faces which comprised the fabric of Madrasi and Calcuttan life. Moreover, the palanquin's circulatory course and jog to walking pace approximate *flânerie's* ambulation and immersion. When Sherer came, some months later, to Calcutta, he found it “highly diverting” to pass through the crowds of black town “and contemplate the various groupes as you recline in a slowly borne palanquin” (1824, 117). Few but a foot-powered vehicle could mimic the plod and dawdle of a stroll. If the *flâneur's* amble mediated his interpretation – weaving walking with writing – so the palanquin mediated the European travellers' initial encounters of urban India. Sherer and Majendie translated a roam around the city into a roaming perceptual inner monologue; a mainly visual stream-of-consciousness into words and images for the European metropolitan literary and artistic elite. Social status also align these two with *flâneurs*. Both were on officers in uniform, with relatively high

salaries and access to regimental equipment. Soldiers, sailors, tavern keepers and other 'low' Europeans did not tour about in palanquins. The vehicle itself signified nobility. Like the relatively bourgeois peripatetic writers of Paris and Berlin, Sherer and Majendie possessed the requisite funds and free time to divert and engross themselves in the urban milieux.

For Walter Benjamin, Paris was the 'capital of the nineteenth-century' and a visual playground of phantasmagorical urban modernity to contemplate and decipher (*ibid*). Though far-flung and exotic, Calcutta was a beacon of colonial wealth and power. Many travellers exalted it as one of the finest cities not only in Asia but in the world (Elers et al., 1903, 156; Spencer, 1918, 120; Twining et al., 1893, 72-74). For visiting Europeans, the "bright noontide of civilization and refinement" was evident in Fort William's wharfs, ramparts and colonnades, in the tall sails and spires which poked above the horizon, and in the neat paddocks and spacious verandas spreading between the mansions of Garden Reach. Even the naval officer Louis de Grandpré admitted that Calcutta's prosperity and grandeur far outshone France's settlement of Serampore (just up the Hoogly), or indeed any of their Asian colonies (Grandpré, 1814, 35). For many visiting Europeans, Calcutta's juxtaposition of ethnicities, religions and architecture for a kaleidoscopic spectacle. "The mixture of European and Asiatic manners observed in Calcutta is wonderful", wrote a Company officer, "coaches, phaetons, hackeries, two-wheeled carriages drawn by bullocks, palanquins carried by the natives, and the passing ceremonies of Hindoos, and the different appearance of the faquirs, form a diversified and curious appearance" (Cramp, 1823, 38). Muslims, Buddhists and Hindus from Bengal and adjacent provinces built in their respective religious and regional styles. Armenians, Eurasians or half-castes and Portuguese generally lived and worked in or around 'Black Town',

along with the poorer English classes, such as tavern keepers, sailors, prostitutes and retirees. The Danish and French settlements lay to the north of Calcutta, along the Hoogly river, effectively residential suburbs like Garden Reach, yet international and commercial in function. Within the city and environs of Calcutta, the palanquin-borne newcomer might witness a dream-like mixture of races, religions, architecture, cuisine, dress and goods.

Gleber writes that, “*flânerie* embraces surrealistic and impressionistic sensibilities ... and an increased attention to the light and textures of big city environments” (Gleber, 1999, viii). Sherer and Majendie encountered a heady visual realm of urban cosmopolitanism to imbibe and elaborate. While their narrative descriptions are neither penetrating nor artistic, they, like Benjamin, interpreted the streets Madras and Calcutta by focusing on vignettes visible through their palanquin doors. As he toured the city, Sherer read the faces and garb of different 'types' of Madrasi, Indian and European. *Flâneurs* in Berlin within a year or two would likewise decipher types of pedestrian by dress and “outstanding physiognomies”, interpreting their professions, backgrounds and characteristics; the 'outmoded suit', the 'furious housewife' and so on (ibid, 13-14). Sherer approximated this 'physiognomics' by reading and describing his own cast of characters: 'poor wretches', 'haughty-looking men', 'officious brahmin' and 'scornful merchants' (1824, 10-16). While few toured the streets or bazaars by night, one army surgeon recommended seeing Calcutta by moonlight – his “favourite time for threading through its mazes” – when the streets became “a giant bed-chamber”, with groups of palanquin bearers, syces (grooms), horse-keepers and other menial servants and labourers sleeping in the open air (Autobiography, 1854, 191-92). Likewise, for Roberts, the sight of bearers wrapped in sheets sleeping in the open

air next to dilapidated machinery resembled dead bodies strewn about in “some pandemonium of horror” (Roberts, 1835, 77).

Finally, Sherer and Majendie's tours capture a Simmelian perceptual and cognitive response to the teeming urban phenomena. In his 1903 treatise, the pioneering sociologist George Simmel explained that, “The psychological foundation upon which the metropolitan individuality is erected, is the *intensification* of emotional life due to the swift and continuous shift of external *stimuli*” (Quoted in Gleber, 1999, 38). Simmel locates a fundamental shift in modern human organisation in the mass of multiplying events and sensations of city life – relative to its rural counterpart. Large, populous, multicultural and teeming with difference, the ‘mental life’ of Madras and Calcutta approximated the profusion of phenomena Simmel found in Berlin and Strasbourg. Rather than billboards, placards, window-fronts, street-lamps, trolleys and so on, Sherer and Majendie witnessed a mix and density of exotic ethnicities, dress, cuisine, goods and architecture. Further, they took in this rousing melange directly and at jog-trot pace; leisurely yet swifter than walking and immersed. While the palanquin did not fundamentally alter time-space relationships like the railway, it accelerated visual perception, at close range, in an already profoundly striking milieu, thus propelling a mass of perceptual stimuli at European travellers (Schivelbusch, 1986). Yet like the railway, the cornucopia and brevity of sights did not necessarily dull or blur impressions. Rather, Sherer and Majendie displayed acute fascination for the details and distinctions which slipped past their sliding doors.

Dawk travel, darkness and landscape: north India by campfire and starlight

From April through September, the afternoon temperature in Bengal regularly exceeds 100 degrees fahrenheit. Palanquin dawk travel was desirable and efficient because it was not diurnally restricted. As Stocqueler wrote his *Hand-Book of India*, while daytime heat and sun precluded long marches, the dawk enabled “the traveller to pursue his journey unintermittingly throughout the twenty-four hours” (Stocqueler, 1844, 187) On the road, travellers tended to move during the coolest portions of each 24 hours. Travel by night spared travellers, porters and animals the discomfort and fatigue of midday heat. It also allowed the traveller to sleep while in transit – the coolest portion of the day. Life and activity after sundown were not so unusual for British colonial residents in India in the early nineteenth-century. Their diurnal rhythm adhered strongly to the local climate and seasons; it was common to rise before dawn, ‘take air’ in the cool of the morning, nap after a late lunch, socialise after dusk, eat supper as late as ten, and go to bed some time past midnight (Williamson, 1810). During the hot and monsoon seasons, night palanquin stages were common. The hire of a dawk relay typically included massaulchis (torch holders) who jogged in front and behind to light the way (ASL, 1828). They might depart between midnight and three in the morning and halt before the heat of the day built u “You generally commence a Dawk trip after dark”, wrote Sherer, “and, habited in loose-drawers and a dressing gown, ... slumber away the night” (1824, 218).

Some travellers slept well inside a palanquin; they praised the fresh air, the rocking motion and lullaby-like chant (anon 1854; Acland, 1847, 40, 105; Eden, 1867, 191, 392; Mundy, 1832, 143; Russell, 1852, 128-29, 132). Others did not catch a wink (Parkes, 1850, 435). Dawk palanquin travel thus gave Europeans the chance to witness Indian surroundings by torchlight. This compact glow could alter the appearance of nearby objects. Captain Godfrey Mundy wrote that as his palanquin passed under the vaulted aerial trunks of a large banyan tree, “its hundred stems, faintly lighted up by the passing glare of the torches, might have easily been mistaken for the gray and time-worn columns of some ruined cloister” (Mundy, 1832, 288). When in a group, dawk travellers saw not only the illuminated vegetation and structures immediately around their palanquin but also the wider caravan dappling the path ahead. The French traveller, Indiophile, and early photographer Louis Rousselet rode up the Bhore ghat in 1864. By this time India's first narrow gauge railway ran up the incline via a series of tunnels and reverses. But repair works forced his party to hire palanquins to reach to the summit. Yet this “ancient system of locomotion” afforded the nineteenth-century antipodal equivalent of a river of headlight:

Our long line of palanquins, escorted by torch-bearers, appears and disappears amid the woods and rocks; the moonlight glitters through the branches; and our good-natured bearers sing us a slow and monotonous but original chorus. He who has not travelled in tropical regions can form no idea of the magnificence of such a night. (Rousselet, 1882, 65)

Rousselet's sensational tone betrays his orientalist and romantic enthusiasm. In contrast to many nineteenth-century British colonialists and travelers, and like fellow Europeans Victor Jacquement and Leopold von Orlich, Rousselet sought the ‘India of the rajas’, rather than that of the British. He spent most

of his six years in India in the 'Princely States' of Gwalior, Bhopal, and Hyderabad recording the customs, art, and architecture of Indian nobility. Yet penchant aside, Rousselet illustrates how darkness and torchlight amplified the exotic impression of an Indian landscape.

The reverend Charles Acland also recorded the intensifying effects of torch illumination on the go. After Christmas holidays c1840, he and his wife departed Midnapore at 9:00pm each in their palanquin, with 16 bearers, two mussaulchis, and two banghy (baggage) bearers. Once clear of the station, the mussaulchis' torches created a linear 'bubble' effect, lighting a narrow footpath, "bounded on each side by an interminable jungle", and making "the scene ... most wild and romantic":

On the road our own palanquins, one a hundred yards in front of the other, carried by black men with merely a cloth in front of their loins, the red glaring torches showing the others who ran swiftly by their side, the banghy-bearers trying to keep up with us, and all keeping up a loud monotonous sing-song tune (Acland, 1847, 36-37)

Mundy, Rousselet and Acland did not see different landscapes in the illuminated darkness; they saw the same landscapes differently. The linear spotlighting Acland described indicates a how nighttime illumination can amplify exoticity. The flames of two oil-soaked rags lighted and enclosed, playing up the pathway as much as obscuring the void which lay invisibly beyond. By illuminating and cloaking, torchlight thus accentuated the figurative qualities of Indian forests. While woods have long had their own mythology as mysterious and enchanted places (Macnaughten and Urry, 2000; Maitland, 2009), the 'jungle' meant tangle, malarial miasmas and realm of thugs and dacoits (Arnold, 1998, 3-4). Furthermore, within this leafy arcade, the amber

glow accentuated another, allied anthropic characteristic of tropical nature: swarthy, scantily clad brown bodies (Stepan, 2001).

Rousselet's and Acland's passages also show how darkness prompts a multi-sensory appreciation of surroundings. Lying horizontal in a coffin-like box, the reduced visual acuity of darkness and the limited aperture of a palanquin door forced Acland to draw upon his hearing to sense in the dark. Acland's was definitely not the detached promontory or touristic gaze (Pratt, 1992; Urry, 1990). Rather, he lay encapsulated, bobbing down an illuminated corridor. In fact, it would not be appropriate to designate what Acland described a *landscape*, given such visual restriction and the term's signification of scene and visibility. Considering that darkness reconfigures sensory perception, forcing one to draw upon other senses, and the limited noise dampening of a palanquin, it is little doubt that Acland appeared to hear so acutely. He lay horizontal in a six-foot wooden-framed box with wicker bottom and side panels, lined with silk (to allow circulation of air but protect against mosquitoes) (Acland, 1847, 85-86). The two rear bearers, approximately two feet behind his head, chanted with those in front to coordinate their step and warn of obstacles.

The amalgamation of Indian people, vegetation and topography in conjunction with darkness intensified the Acland's en route landscape experience. During another palanquin journey the Aclands and two friends changed their bearers at a dawk relay in Orissa, "many hours' journey from any European" (ibid, 89). All were faint with fever save Acland. It was pitch dark and drizzling. "The red flaming torches" revealed almost a hundred locals come out to watch the transfer, with long black hair and "immense mustachios, naked, except for a cloth round their loins". On one side of the road lay

jungle, on the other a nullah, “and these, as well as the dusky group, were flittingly lighted by the torches of the mussalchis”. At this point, in a passing sentence, Acland makes a notable aesthetic point: “Now, the nullah and the jungles, and the torches and the palanquins, are no great wonders in themselves, but together they make a pretty picture, or rather a striking one” (ibid, 91). His remark merits at least two considerations regarding darkness and landscape. First Acland explicitly conceived of – and evaluated – his Indian surroundings as pictures, a common practice of colonial travellers (Stepan, 2001; Gregory, 2001). Then, the contrast of gloom and illumination swelled the drama, intrigue, and beauty of the ‘scene’, augmenting its romanticism and wildness. But it required the uniting and bounding illumination of torch lights to *combine* these components set them against a shadowy backdrop.

Around the campfire

While relatively organised and reliable, dawk travellers had to provide mostly for themselves. For the 436 miles between Calcutta and Benares (NMR route), the Asiatic Lithographic Company listed 7 staging bungalows, each 27 to 90 miles apart (ALC, 1828). Thus a dawk traveller camped one to two of every three nights on the road. Camp entailed an entourage. A dawk palanquin relay typically included bearers (usually eight), one or two mussalchis (torch holders) and banghy (baggage) bearers (ibid; Stocqueler, 1844,

361).²⁴ Solo travellers nearly always brought a personal servant, often more. And most Europeans, for comfort and safety, tended to journey in pairs or groups. Those travellers going off principle dawk routes took one or more tents, cooking equipment, cot, table, chairs and provisions (e.g. Ball, 1880; Hooker, 1854; Keay, 2000). Then there were the hired hands: a *jemadar* (head servant), camel and bullock drivers and *chuprasies* (caste-specific servants) to pitch tents, cook meals and keep watch, and *coolies* (all purpose labourers) for various menial duties.

If a small train followed even 'lone' travellers on principal dawk routes, camp travel between and beyond these thoroughfares and families, hunting parties, regiments and so on often resembled a packable canvas town (e.g. Graham, 1878). From a scenic perspective, the bearers, servants and sundry necessities of travel constituted a portable backcloth which established itself each night around tent or bungalow. Servants unloaded provisions, fed animals, set up tents and cots, kindled fires and cooked dinner. Bearers massaged one another's legs and sung songs to ward off sleep until the meal was cooked. Camels, bullocks and even elephants might forage in the thickets nearby. This collective backdrop comprised many ingredients of Orientalist imagery, charming early nineteenth-century bourgeois fascination for exotic and picturesque scenery.

Emma Roberts, an unmarried, struggling writer of nearly 40, reluctantly accompanied her younger sister and brother in law to Bengal in 1828. Despite

²⁴ "Mussaul, s. Hind from Arab. *mash'al*, a torch. It usually is made of rags wrapt round a rod, and fed at intervals with oil from an earthen pot."; "Bangy, Banghy, &c., s. ... a. A shoulder-yoke for carrying loads, the yoke or bangy resting on the shoulder, whilst the load is apportioned at either end in two equal weights, and generally hung by cords" (Yule and Burnell, 1886, 459-60, 45-46)

her doubts, India gave Roberts the opportunity to journey independently and savour its 'Romantic' sites. She travelled extensively by dawk across the GTR and NMR routes of Bengal. Campsites, regal processions, bazaars and Hindu festivals furnished her with rich, scenic compositions and (thus) fuelled her writing (e.g. Roberts, 1841, 1835, 1832). In her 1832 book of verse, *Oriental Scenes*, and 1835 travel narrative, *Scenes and Characteristics of Hindostan*, she praised the aesthetic charms of Indian life and landscape on the road. For her, it was "scarcely possible to imagine any thing more picturesque than an Indian cavalcade" (1832, 182-83). She found her retinue especially captivating when the sun went down:

the scattered groups [of servants], which they afford in the glades and openings of the forest, their blazing fires, cheerful songs, and the majestic and picturesque forms of the elephants and camels glancing between the trees, make a panorama, which the eye of taste can scarcely tire of contemplating, and which, once seen, can never be forgotten (ibid, 244)

Roberts indicates the power of darkness and illumination to enrich the exotic and picturesque properties of camp surroundings. Notably, her experience is *shared*. Rather than solo observation or rumination, it is the 'multitude' of attendants and paraphernalia of dawk travel which composed the aesthetic conditions. Witnessing the illuminated camp is an immersive, participatory event dependent of the appearances and actions of her hired team. For Roberts, tents, camels, servants and so on constituted a suite of scenic 'props'; an animate tableau. These props, moreover, prevented loneliness and physically gathered bodies around the warmth of fire, creating an almost festive atmosphere. The "multitude of followers, attendant even upon a small encampment, preclude[d] the possibility of any dreary or desolate feeling" (Roberts, 1835, 244). Like a romantic restaurant or the Danish tradi-

tion of *hygge*, her sentiments indicate the capacity of darkness and firelight to foster co-presence and conviviality (Bille and Sørensen, 2007, 275; Edensor, 2013a, 2013b).

The multitude of humans, animals, and artefacts underscores the communal experience of seeing landscapes at night, a trend Nina Morris and Tim Edensor have found in contemporary phenomenological and urban research (Edensor, 2013a; Morris, 2011). Against the 'singular events' and "isolated narratives" of some phenomenological accounts (e.g. Wylie, 2006, 2002), Morris shows how, in forest darkness, non-visual perception heightens while social and physical proximity tighten, binding people together. Individual experience is "closely tied not only to the perceptual environment but also to the actions and expressions of others" (Morris, 2011, 335). This mutuality presents a tension in Roberts' romantic aesthetics and prose. Alongside impassioned, evocative, and lyrical prose, individual imagination and solitude were hallmarks of romantic landscape descriptions (Cardinal, 1997, 135-37). Roberts' descriptions alternated between rhetorical withdrawal into solitary narration and open literary embrace of her dawn entourage. At times, as above, she delighted in the fellowship of the exotic human and non-human camp members. At others, she omitted them, portraying herself alone in the darkness (Roberts, 1832, 1835). Yet the numerous camp members and co-cooned illumination could act as a corrective to such stylistic exclusion; a sphere of visibility summoned visual attention around a lit up 'panorama' of people and objects in Roberts' immediate vicinity. While associated with solitude, darkness foregrounded a collective production of and encounter with landscape.

The pocket of campfire light within which Roberts found herself mirrors what Morris has called a 'bubble' effect: the flames, unable to penetrate the surrounding gloom, circumscribed a sphere of light which concealed the broader landscape and gathered vision around the immediate (2011, 322). In contrast to and alongside this encapsulating glow, firelight threw shadows against the surfaces of canvas, smoke and tree trunks. Francis Adams, an EIC military physician, thought the jumbled silhouettes of an Indian brigade breaking camp, "would make a fine subject for the painter": mallets, bearers, doolies, soldiers and, "by the light of the camp fires, the camels' gaunt figures, or an occasional elephant laden with tents and heavy baggage, defile past one after another" (Adams, 1867, 118). If the late eighteenth-century vogue for picturesque landscapes was premised on sentimentally rich and picture-like scenery (Andrews, 1990, vii), the illumination of firelight simultaneously framed and projected the campsite 'composition' in a literal, optical way: a sphere of visibility concealed far-away objects while spotlighting and delineating the symbolic human, animal and artefactual figures within a forest opening. Silhouettes, furthermore, like a glowing woodcut, emphasised the forms of bearer, tent and turban, magnifying their iconicity.

Roberts' use of "glancing" and Adams' silhouettes reveal firelight's movement. In his *In Praise of Shadows*, Junichiro Tanizaki exalts the capacity of lacquerware to reflect the "wavering candlelight, announcing the draughts" that flow silently into a room at night, like invisible rivers (2001, 24). Unlike the constancy of electric light, flames glimmered, setting tree trunks, foliage and tents in motion. From two different phenomenological sensibilities, Will Self has noted the 'shape-shifting' capacity of darkness while John Wylie has argued that the landscape-observer does not behold a passive, inert surface but a pulsing, milieu-in-form (Wylie, 2006, 478). The optical dynamism

of firelight affirms that the experience of looking at landscape is processual and immanent, rather than permanent or static. The enthusiasm of travellers likewise conveys the power of night to enchant, and etymologically evokes – from the Greek *phantastikos* – the dual capacity of light to make visible and induce visions. As opposed to what Self calls the 'complacent normalcy' of daylight, firelight stimulated a more phantasmagorical spectacle, not unlike theatrical lighting (2007).

What unites the landscape encounters of Mundy, Rousselet, Acland and Roberts – after night, darkness and illumination – is collectivity and iconicity. Nina Morris has discussed phenomenological encounters with night landscapes in the context of a contemporary art installation (2011). These travellers also experienced 'nightscapes' through a type of installation; their travelling team, whether encamped or on the move, set against forest, river, pasture, plains, or hills. These camp cavalcades swelled the aesthetic content of a travellers' surroundings. A camp or night stage teemed with exotic symbols of the 'East': camel and elephant, 'black' skin and turban, jungle and desert, palm tree and pagoda. Yet the traveller effectively packed in half the components. This scenic effect parallels the way in which European travelling artists retrospectively inserted figures in traditional garb into their Indian landscape paintings (e.g. Fraser, 1820; White, 1838). Instead of, or in addition to, affixing Indian icons with brush or pencil, travellers physically transplanted an escort of artistic 'props' and then included or omitted them from written description. These scenic components, furthermore, should not be seen as lying idle, awaiting European interpretation. Rather, the integration of travelling camp, darkness and illumination provoked observation, stirring associations and inviting description.

The combination of dawn travelling retinue and visual transformations of night, in turn, suggest that European encounters with picturesque Indian landscapes were, in addition to projective 'ways of seeing', a co-constituted relation to which the wider human and non-human camp entourage contributed. 'The Picturesque' generally refers to an aesthetic ideal popularised by William Gilpin's 1782 *Observations of the River Wye*, which instructed Britain's leisured travellers to appraise "the face of the country by the rules of picturesque beauty", and can be understood as part of the late eighteenth-century Romantic sensibility. As an aesthetic criteria, the picturesque forms a kind of meeting point between culturally specific preconditioning and (mostly) visual interpretation of landscape. Travelling to India with their notions of the picturesque, the sublime, and so on, therefore shows not only "the portability of European taste" (Schwartz and Ryan, 2003), but also the portability of exotic Indian landscapes for European travellers; they effectively transported and installed a foreground each night.

Furthermore, travellers' picturesque nighttime descriptions show that while they brought their own aesthetic taste and sensibilities, historians of India have likewise imported their analysis and conceptual frameworks of landscape from art historians, literary theorists and cultural geographers. In his study of British hill stations, *The Magic Mountains*, Dane Kennedy uses notions the picturesque and the sublime as articulated by Malcolm Andrews and Marjorie Hope Nicholson to analyse how European travellers and artists selectively interpreted a narrow range of Indian landscape scenery (Kennedy, 1996, 39-62). He captured how early travellers to the Himalayas ignored plains, scrub brush and other un-picturesque landforms and focused their pens and brushes instead on peaks, waterfalls, temples, ruins and so on (ibid). Ten years on, in his *The Tropics and the Travelling Gaze*, Arnold com-

bined Mary Louise Pratt's Foucauldian-derived postcolonial critique of power and representation with Cosgrove and Daniel's iconographical notion of landscape as a 'cultural image' to show how colonial botanists and surveyors appraised Indian vegetation and vistas by a solidifying tropical aesthetic (Arnold, 2006, 5). Both authors show how European 'ways of seeing' determined perception and representation. Yet Kennedy and Arnold likewise pass over travellers' interpretations at night. Focusing almost entirely on discursive tropes and artistic practice, these scholars' omissions run against the grain of travellers' actual schedules and experience, much of which occurred after dark.

Seeing by starlight

It was not only the collective presence of bearers, bystanders, torches and tents. Nightfall enriched Indian landscapes more generally by permitting the traveller's imagination to roam. Roberts often mounted her palanquin or pony after midnight and moved until the mid-morning. "In the hot season", she wrote, "persons who brave the heat of the day in a palanquin, venture at the risk of their lives: they should always take care to be housed by twelve o'clock" (Roberts, 1835, 208). Nocturnal itinerancy suited her. In addition to the relative cool, night stages were fodder for a stream of literary allusions – Ann Radcliffe, Erebus, the river Styx – and evocative turns of phrase: "murky depths, ... lurid lakes, fiendish forms, ... swart faces, ... fearful abysses" (ibid, 218-19). Her interpretations arose partly from practicality. Overnight travel required cautious progress and added stops, especially where monsoon-swelled watercourses brimmed the route. Jheels (temporary ponds or swamps) were usually too large to skirt and, unlike at rivers, ferry

boats seldom waited by their banks. Instead, the traveller's servants constructed a raft from bamboo and rattan, covered with grass, and floated on clay pots. Though it posed little danger, a dark lagoon licensed literary embellishment. "At night", wrote Roberts, "the passage of one of these jheels is really terrific, and might be seriously alarming to a person of a timid disposition". She recalled "the wild and almost awful scene" when her party crossed a large jheel during the monsoon. As she waited for servants to ferry her across,

there was ample opportunity to contemplate the landscape. It was darkness made visible by the red glare of a few torches, which gave indistinct glimpses of the surrounding objects; sometimes they threw their waving flames upon the swart faces of a wild groupe, apparently struggling in the water, round the shapeless raft (1835, 218)

One mussaulchi waded slowly beside the bearers, a "lurid light" up to his neck in water, shrinking to an amber speck by the opposite bank. Next, Roberts mounted the makeshift raft and was pulled across. The "blackness above, around, below" reminded her of the risk, "should an accident occur", tempering – or perhaps elevating – her enthusiasm, and paralleling art curator Mary Horlock's comment that darkness induces "contradictory emotions": uplifting feelings of liberation and intrigue, but also unsettling senses of vulnerability and surrender (Roberts, 1835, 218-19; quoted in Morris 2011, 316). "The passage was fortunately achieved in safety, and most gladly did [her party] quit their damp couch upon the wet grass for their comfortable palanquins" (Roberts, 1835, 219).

Nighttime did not just transform scenery, it corrected the flaws of an Indian countryside which Roberts found lacking in luxuriance and fertility. Her ap-

praisal was not uncommon. Across the nineteenth century British travellers found arid portions of India aesthetically deficient. Their expectations hinged on the cultivated fields of home, on one hand, and a growing alignment of India with tropical colonies girding the equator, thus lush, verdant vegetation (Arnold, 1998, 13). While the palms, banana leaves, and thick forests of coastal Ceylon, Madras, and Bengal almost unanimously pleased travellers, the parched pasturelands and crispy scrub of the dry-season (particularly across the northern plains) tended to disappoint. Eight months later Roberts recrossed her path. The monsoon rains had long evaporated, nullahs ran dry, and the former jheel was “transformed into a basin of deep sand” (Roberts, 1835, 219).²⁵ Now darkness enhanced the landscape by ocular adaptation. For Roberts, it was “only when night spread its mysterious spell over the scene, that an Indian landscape, during the dry weather, can captivate the eye” (ibid, 219-20). By day, dry soil sucked the charm from otherwise romantic temples and dust covered the glossy green of banana leaves. But by night,

barren sands become soft and silvery; and the parched desert, cool and refreshed, cheats the vision with a semblance of verdure. For a dak traveller, the changes produced by the approach of night are particularly striking: his eyes have been wearied for many hours with dust and glare, and he hails the first shadows cast by the setting sun with joy (ibid, 219)

Optical science clarifies Robert's seemingly fecund hallucinations. The retina contains two types of photosensitive cells: cones, which predominate during daylight and are sensitive to detail and colour; and rods, which predominate during night and are sensitive to contrasts, yet almost entirely on greyscale

²⁵ This jheel site was in the vicinity of Patna, Jharkhand province, located west of Bengal along the Ganges and Grand Trunk Road dawki route between Calcutta and Allahabad.

(Attlee, 2012, 67-71). Further, as daylight fades and rods take over, the eye's sensitivity to blues and greens increases while its sensitivity to reds decreases. The result is that under moon or starlight the eye sees mainly in black and white, and 'cool' colours. Roberts would have witnessed sand dunes and dormant pastures drained of their warm ochres, browns, and beiges – which signalled aridity and heat. Instead, nightfall coated the countryside with shades of black, indigo, and lustrous grey (sand grains composed chiefly of quartz). This spectral shift thus reduced non-tropical aesthetics and thus furnishing a sense of verdure. In addition, the chill of a north Indian winter night likely stimulated bodily associations: Roberts would have *felt* coolness while also 'seeing' it via black, indigo, and violet hues. Nightfall did not infuse the land with greenery but, for Roberts, cold hues and cold air lessened the sense of aridity and barrenness, 'cheating vision'. It is notable that at a similar time and with a similar optical effect, travelling landscape enthusiasts in Europe were using the Claude glass to 'dye' landscapes into the darker, more romantic tones of Claude Lorrain and Salvator Rosa (Andrews, 1990, 69-71).

Darkness thus furnishes an unorthodox perspective on the discourse of tropicity. Eighteenth and nineteenth-century European and American paintings of the tropics tended to radiate light: sand, surf, swaying palms, and forested mountains under clear blue skies (Smith, 1985; Stepan, 2001; Driver and Martins, 2005). More practically, many European travellers experienced India's environment through glare, tanned skin, sunstroke, dehydration, and hard-baked soil. Yet, as James Duncan reminds, the tropics abounded in literal and figurative shadows: torrential rains, dank undergrowth, and mysterious diseases, as well as colonial tropes of 'enlightened' European morality, technology, and agriculture relative to South Asian corruption, superstition, and in-

dolence (Duncan, 2007, 1-2). The nighttime interpretations of Emma Roberts adds two aesthetic aspects to tropicalty's light/dark division. Night stages literally deceived the eye by altering the landscape's perceivable colour palette and so reducing undesirable un-tropical tones (Roberts, 1835, 220). At the same time, flora and fauna (elephants, jungle, palms) and Indian – or 'Eastern' – emblems (huts, turbans, pagodas) remained visible, supplying exotic material symbols associated with 'the tropics'.

Night and moonlight also diminished aesthetically fatiguing pastoral poverty. "So extraordinary is the illusion", wrote Roberts, "that it would not be difficult to fancy that [the traveller] was entering upon some new country; some enchanting paradise hitherto undiscovered, whence all unsightly things have been banished" (ibid, 220). Under moonlight or framed against a star-speckled sky, mud huts, sand-banks, gaunt camels, climbing gourds, and sleeping bullocks were "decked with beauty" and "assume[d] a romantic appearance". Sunrise, however, "dissolve[d] the spell; squalid objects re-appear; dust and dilapidation abound amid the dwellings of man; the too-glorious sunshine envelopes the distant scene in a dazzling veil" (ibid, 221). The only option was to shelter oneself under a chattah or inside a tattie-moistened palanquin, and wait out the heat (ibid, 221-23).

While Roberts' interpretations reveal her literary inclination, they support author Robert MacFarlane's conclusions about landscapes witnessed at night:

Associations swarm out of the darkness. You become even more aware of the landscape as a medley of effects, a mingling of geology, memory, movement, life. The landforms remain, but they exist as presences: inferred, less substantial, more powerful. (2008, 193)

Roberts did not see any more of the land at night. Indeed, she saw less. Yet darkness simultaneously obscured the Indian 'canvass' and encouraged Roberts' artistic associations to surge. Put another way, darkness enchanted the landscape (e.g. Edensor, 2012). Daylight, unfortunately for her, brought back the aesthetic grit in plain view. MacFarlane, walking by night two centuries later and a train-ride from home, consciously resorted to nightfall for "the wildness" which the dark restored to a Lake District "loved into tamedness by its millions of visitors" (2007, 192-93). For Roberts, as for Acland, the illuminated glimpses of palanquins and servants tended to signify culture rather than nature. But it, too, was a kind of wildness: an unfamiliar, untamed life which existed, for them, in novels, poems and paintings at a far end of the ethnic spectrum. They 'read' the palanquin alongside brown skin, turbans, torches, camels, and canvas tents. For each traveller, though, darkness had an ephemeral and transformative power which amplified 'cultural wildness'. Night settled on the Indian countryside like snow, giving the imagination leeway and intensifying the aesthetic impression of landscape. Like picturesque camp scenes at night, tropical exoticism was not only a mental projection or topographic quality (e.g. Arnold, 1996, 142-60; Driver and Martins, 2005, 1-5) but also an ephemeral intensity which waxed and waned according to diurnal conditions. While camp and dawn 'compositions' effected a physical installation, starlight optically and psychologically increased the exoticism and aesthetic impact of Indian landscapes.

Climate, shelter and 'weapons of the weak': outsourcing suffering

To persons born in the temperate British Isles, the heat of India was not just a source of discomfort but a synonym for the stark difference and seeming hostility of a tropical climate. While the fecundity of Bengal and south India seemed to promise abundance, personal experiences convinced many colonists that heat was associated with disease, decay and death (Arnold, 1996, 142-60; Kennedy, 1996, 19-21; Duncan, 2007, 1-8). Medical knowledge concurred. James Johnson's 1813 *The Influence of Tropical Climates, More Especially the Climate of India, on European Constitutions*, would become the most influential medical text in India over the next 40 years. In it Johnson attributed nearly every disease to the Bengal climate. In another leading treatise, *The Influence of Tropical Climates in Producing the Acute Endemic Diseases of Europeans*, James Martin wrote that "Heat is in fact the great moving power of all other subordinate sources of disease" (1861, 58).

Climate became a basic explanatory device in the British encounter with tropical and sub-tropical Asian colonies, and was used to interpret the differences between Europeans and Indians (Harrison, 1999). The question of survival was therefore the domain of the Company surgeons, who brought to India the 'humoural', or environmental determinist, theory of disease. This doctrine believed the body to be in continual interface with its natural surroundings. Jean-Joseph de Brieude summarised this approach: "The clime he inhabits, the seasons he encounters, the arts he practices, the earth he digs, finally, the air he breathes, change in different ways the humors he assimilates as well as those he exhales" (Quoted in Corbin, 1986, 38). A primary lo-

gic of the humoural theory was that different climates produced different constitutions (Harrison, 1999). The warm, humid climate and fertility of Bengal was supposed to induce indolence and effeminacy. Temperate climates, by contrast, bred robust, independent bodies and minds, full of manly vigour. Not only did transplantation to India throw the European constitution into disequilibrium, opening it to local diseases, it caused permanent degradation or miscegenation.

Company surgeons focused their research and advice on how to mitigate heat, and therefore disequilibrium. In his section on prophylaxis, James Johnson advised (with booming emphasis) that “TEMPERANCE and COOLNESS ... is, in reality, the grand principal of Inter-tropical Hygiene, which must ever be kept in view, and regulate all of our measures for the prevention of health” (ibid, 418). The British, particularly Company grandees, did not tend towards temperance. To Johnson's chagrin, they distinguished themselves by feasting on spiced meats and guzzling claret, brandy and madeira (port) (Spear, 1963, 95). Thomas Williamson, in his *East-India Vade Mecum* (handbook), strongly advised a temperate lifestyle. He forbade meat and oils at breakfast but endorsed a glass of wine at lunch, four to five of port with dinner and another before bed (Williamson, 1810, 177).

Indigenous customs and material technologies, though, might allow colonialists to follow the “fundamental rule, for preserving health in hot countries ... 'TO KEEP THE BODY COOL'” (Johnson, 1813, 417). While Europeans could safely ignore Indians' “strange medley of ludicrous and ridiculous customs” (chiefly the religious and political), “indigenous customs [were] ... a useful guide to survival” (ibid, 417). Johnson endorsed the “*essential* articles of Native dress: the light, flowing robes of cotton, silk, calico, &c.”, and

lamented the “cumbrous garb of northern climates” and “tyrant custom” of uniforms (ibid, 420). Domestic technologies were also key, such as wetted floors, venetian blinds, fans, verandahs and tatties (screens affixed to windows and wetted).

Johnson even advocated supposed oriental luxuries, such as shampooing (massage), the chattah (parasol) and the palanquin. The palanquin was associated with Mughal despotism, on one hand, and indolence and effeteness, on the other. Johnson defended this questionable vehicle on principals of health. To those who denigrated this “Asiatic effeminacy”, he retorted that the conveyance was “cheap, elegant, and convenient, on the sultry plains on India” and “a species of passive exercise exceedingly well adapted to a tropical climate”, particularly because its reclined position aided “languid circulation of the blood” (Johnson, 1818, 409-10). Also aware of the unmanly image the palanquin might garner, Williamson called attention to the Indian climate, which “arbitrarily imposes the necessity for retaining some classes of servants, unknown in England; or at least, supposed to be exclusively attached to the convenience of ladies, and of sick persons”. In particular, chattahs and palanquins protected European constitutions from the fierce sun and enervating heat, exposure to which could kill. Suggesting priority, the first chapter of his *Vade Mecum*, entitled 'Great Heats', discussed the perils of India's climate and means of alleviation. He concluded with this exhortation:

We, therefore, must coincide with the habits of the natives, to a certain extent, if we mean to retain health, or to acquire comfort. ... by taking the general outline of indigenous customs for our guide, if we err, it will be on the safe side. Nothing can be more preposterous than the significant sneers of gentlemen on their first arrival to India; meaning thereby, to ridicule, or to despise, what they consider effeminacy, or luxury. ... we too often are called

upon to attend the funeral of the self-deluded victim! (Williamson, 1810, 2)

Though a questionable practice with respect to character, the palanquin addressed the twofold question with which this chapter began: How were British colonialists to survive in the Indian climate and, in a land with few roads, much forest and the annual monsoon, how were they to get around? The palanquin itself sheltered British bodies from the Indian heat while the dawk network (as described in the introduction) enabled colonial residents and travellers to reliably traverse hundreds of kilometres by reserving relays of bearers along their intended route.

Significantly, however, this two-fold capacity to retain health and move freely rested on the vehicle's material properties and the unequal political economy of colonialism. In other words, the mobility and landscape encounters I described above were only possible if travellers 'outsourced' the strain and suffering of physical mobility in the Indian climate. Colonialists' relative wealth and power enabled them to rest while bearers – as literal bearers of human burden – earned a subsistence wage. Johnson asserted that if the 'Anglo-West Indian' could hire a dozen "sturdy" bearers "for the trifling sum of four or five shillings a-day", he and she "would soon condescend to recline in their palankeens, with as much state as their 'effeminate' brethren of the East" (Johnson, 1818, 409). Unlike India, however, "neither the country [Jamaica] itself nor its *imported* population" could provide the colonialist such a "cheap" and "convenient" conveyance (ibid, 409).

Effectively, on behalf of their passenger, bearers bore the exertion and exposure to the Indian climate. Johnson's language of trifling, cheap and conveni-

ent hints at how the practice of dawk palanquin travel discursively and practically dehumanised bearers; they were converted from people to motive power. In addition, some travellers abused their bearers. At the same time, the geographical and social isolation of palanquin mobility left the traveller vulnerable. Between towns, villages and staging bungalows bearers exploited the travellers' isolation and inexperience through 'weapons of the weak', such as avoidance, 'foot-dragging', humour, striking and desertion (Scott, 1990, xi). The palanquin was a mobile 'site' in which the dominant (travellers) and the weak (bearers) were caught in a web of social relations.

Shelter and outsourced suffering

While many Britons preferred to ride a horse, they likewise believed that during the hot season the sun shone so powerfully that the palanquin was a necessity, and that even in winter it was unwise to travel midday. The palanquin effected a moveable amalgam of the colonial hill-station and the *sola topi*: a mobile climatic refuge and technical garment. Like an enclave or tropical kit, it sheltered travellers physically and psychologically. The cambered (and sometimes double-layered) roof and lining shaded the rider while woven cane side-walls and bottom and sliding door ventilated the interior. In addition, some travellers affixed tatties (wetted matting) to the door or walls. In a footnote to his subsection on 'Tropical Hygiene', Johnson noted that tatties "being affixed to the doors of palankeens, and kept moist, enable Europeans to travel during the hottest weather" (Johnson, 1818, 409).

Like tropical clothing, the palanquin blended local knowledge and technology with European style and meaning. Many tropical garments were based

on observations of local skin, materials and practice (Johnson, 2008). For example, the cummerbund and *sola topi*, came from the Persian for loin cloth and the Hindi for hat (made of *sola*, or pith) (De Caro and Jordan, 1984; Renbourn, 1957). By adopting the palanquin itself, woven screens and tatties, British travellers did not believe they were 'going native'. Rather, they accepted their biological – 'constitutional' – inferiority in the tropical climate but believed in their intellectual superiority by adapting technological protection which mitigated heat, thus disease, 'disequilibrium' and degeneration (Johnson, 2008). Moreover, as the *sola topi* came to signify the moral and civilisational supremacy of the Victorian sahib, the palanquin could display the traveller's European identity. Figure 3 shows how the palanquin integrated the trimmings of a hansom cab. Dressed in vest, jacket and breeches, the Company administrator's palanquin bears winged crests, Venetian shutters, silk curtains, wrought iron braces and ornamental lanterns.

Despite its technology and shelter, the palanquin was not a panacea. Travelers cursed the long stages, the jolting motion, the cramped quarters, the inability to read or write, the occasional drops (when bearers fell) and bearers petitions for gratuities. "The heat makes you sick as if you were to shut your head up in an oven", wrote Fanny Parkes (1850, 102). She was not the only traveller to use cooking metaphors (Russell, 1852, 208; Wolff, 1861, 448). In his burlesque poem, Charles D'Oyly rhymed the misery of a dawd journey: "Fast rushing, and his brains like jelly shaking; While sun and rain, in turns, were broiling him and baking" (1828, 256). In June, when the mercury hovered at 105° F inside his house at 6pm, the Reverend Charles Acland wrote that "the thermometer in my palkee stood at 126°" (1847, 83). Some passengers appear to have contracted heat stroke while Parkes wrote of a

friend's death induced by palanquin travel (Russell, 1852, 164; Parkes, 1850, 102).

Like the cultural milieu of a cantonment or the collective appearance of a uniform, a palanquin preserved the traveller psychologically. It cocooned them from the stares and petitions of locals and could even be used as a disguise (Edwards, 1866, 255). Many travellers equipped their palanquin with creature comforts. At minimum, wrote George Trevelyan, the dawk traveller should bring "bread, beer, and bedding" (Trevelyan, 1869, 91). Many travellers brought more. Acland outfitted his with white drill cushions, silk lining and a removable leopard skin box in which he stored bottles of soda water and beer, books, medicine and pistols (Acland, 1847, 85-86). On cool winter night stages he sipped brandy-ginger tea and puffed a cigar, the smoke of which, he believed, warmed him and warded off fever (ibid, 84). Drinking and riding was common. Passengers sipped wine, beer, brandy and even champagne, generally as a somnolent (Acland, 1847, 85; Campbell, 1842, 275; Mundy, 1832, 232; Pester, c1900, 19). Some travellers even brought their hunting greyhounds, pet canaries and pure-bred spaniels (Baker, 1854, 232; Eden, 1867, 41; Sleeman, 1844, 159).

All this apparatus, cargo and rider rested not on wheels but on bearers' shoulders. More, bearers *jogged* their freight across long distances, over formidable terrain and in a climate which doctors and lay colonialists considered perilous. In other words, British travellers' mobility relied on palanquin bearers taking the strain and suffering of the Indian environment. In his 131 page section on servants, Williamson wrote that the

palanquin bearer, is a servant of peculiar utility, in a country where, for four months, the intense heat preclude Europeans from taking much exercise; and where, during a similar term, the constant state of puddle, in every place not artificially raised, and drained, at great expense, utterly precludes them from walking. (Williamson, 1810, 299)

The word 'utility' captures a critical aspect of the traveller-bearer relationship. Travellers *utilised* their bearers to the maximum sustainable output. Travel proceeded at the fastest pace possible. Williamson reckoned, including stops, this proceeded at “four miles per hour during the cold season, three and a half during the hot season, and from two to three during the rains” (1810, 335). Individual stages usually measured from 7 to 12 miles but could be extended as far as 40 miles if the traveller leveraged their power, such as withholding pay or bribing the bearers to continue (Dunlop and Inverarity, 1858, 266; Graham, 1878, 62; Orlich, 1845, 259; Pester, c1900, 120). Travellers also strategically 'refuelled' their bearers. After a day when he was carried over waist-deep water, Heber sent his bearers to eat supper at 3pm and sleep until midnight, when they departed again for a 16 mile slog over 7 hours (1829, 316). Lack of rest made such distances more impressive. The magistrate George Graham travelled off dawd with 16 bearers. Four carried while the remaining twelve rested, “if it may so be called, by running along side it” (Graham, 1878, 62). The liquids, books, pistols and so on which travellers packed weighed palanquins down. Graham lamented that European travellers got so accustomed to palanquin travel that they treated the vehicle like “any other conveyance, and show[ed] little consideration for their human beasts of burden”. He knew of officers who, on top of their belongings and provisions, kept “a stone or two of ammunition ... on the chance of sport by the wayside”.

The capacities of and demands on bearers' bodies highlight an irony of colonial discourse. Early nineteenth century medical and popular knowledge believed that the heat and fertility of eastern India combined with a vegetarian, rice-based diet produced an indolent and effete person. A British sneer linked the Bengal topography to its residents' character: "A low, lying people in a low-lying land, ... with the intellect of a Greek and the grit of a rabbit" (Quoted in Rosselli, 1980, 121). Yet the Ooreah and Bengali bearers that dominated the dawk and Calcutta palanquin trade possessed incredible endurance and craft skill (Deloche, 1993, 210-14). Graham and a friend tried to carry an empty palanquin "and found it so galling to the shoulder that [they] could not get beyond a few yards, while these men, who lived on little else than rice, could carry a loaded one over forty miles" (Graham, 1878, 62; see also Williamson, 1810, 299-300). Another Bengal resident wrote that "The performances of these thin-legged, miserable, rice-fed 'missing links' are perfectly inexplicable according to our notions of muscular development" (Trev-elyan, 1977, 94). While the supposedly robust European lay sheltered inside with books and brandy, supposedly effeminate bearers bore them as burden, in bare feet, day or night, rain or shine.

Notions of bearer effeminacy become yet more ironic when terrain is considered. As Williamson's three speeds indicate, pace varied according to season. The monsoon impeded overland progress significantly. From July through September northern India receives over 80 percent of its annual rainfall, transforming the landscape from sandy hard-baked to streaked with streams and swollen rivers – a "constant state of puddle", as Williamson wrote (1810, 299). River crossings slowed the pace to three miles per hour (Williamson, 1810, 335; Heber, 1829, 244). Bearers either laid the palanquin perpendicular on two boats, inflated buffalo hides or clay pots, and then

dragged or swam it across (Heber, 1829, 321; Mundy, 1832, 362). As Figure 4 shows, bearers sometimes piggy-backed the traveller across. “In this sort of thing” wrote Acland, “we move about everywhere, and in crossing a river do not wet our feet” (1847, 11). Another traveller wrote of being “carried a considerable distance on the men’s shoulders” across a jheel while the other bearers balanced the palanquin on their heads “in order to keep the bedding dry” (Pester, c1900, 302).



Figure 4: “Crossing a river with a palankeen” by Thomas Moxton. From the Royal Geographical Society collection.

That bearers, rather than riders, bore the burden of the Indian climate was a primary function of the palanquin. In northern India May is typically the hottest month, when mean temperatures hover at 32°C and daily maximums often exceed 40°C (Allaby and Garratt, 2001). As the summer heat rose bearers required additional rest and hydration, reducing the speed and 'efficiency' of

this vehicle. With a large enough cavalcade, travellers could sustain their bearers – and thus overall pace – by alternating between palanquin and pony (Heber, 1829, 268). Night stages also saved bearers – and animals (Ball, 1880). Nonetheless, such heat took its toll on bearers.

Contemporary exercise physiologists have found that exercise above 30°C causes hazardous levels of dehydration and hyperthermia and that extreme cardiovascular exertion at 40°C results in exhaustion (physical failure) in just over 30 minutes on average (Casa, 1999; Glace et al., 2002; Hancock, 1982; Nielsen et al., 1993). While such studies cannot be compared directly with historical accounts, they provide a frame of reference for travel narratives which recorded bearers 'dropping'. The soldier and sportsman John Pester authored the most explicit instances of bearers being run to exhaustion. He served in the Second Maratha War (1803-05), which required him to traverse northwestern India for over two years. At the beginning of the war Pester was travelling to an ammunition store north of Delhi. It was late May and the "wind blew after sunrise like flames" (Pester, c1900, 119). Despite ample, punctual bearers for each relay, "many of them frequently fainted, and were left at the villages through which we passed" (ibid, 119). A few nights later Pester set off at ten in the evening. "It was a dreadful hot, sultry night", he wrote, "and the bearers were not able to go faster than three miles an hour with us, and at that rate many of them dropped under our palanquins" (ibid, 120).

Nearing the end of the war, in June of 1805, Pester was ill and withdrawing his regiment across the Madhya Pradesh plains.²⁶ Between April and June

²⁶ Roughly between Bombay and Delhi, near the Great Thar Desert of modern day Rajasthan.

Pester made references to the heat on over half (33) of the days, including the heat rising “considerably” above 110° F (43°C) (ibid, 408). British soldiers were “constantly dropping from fatigue and overcome by the extreme heat, some of them never to rise again” (ibid, 399-417). While again supplied with regular relays, his bearers collapsed in the heat. They stopped to drink, “at every one of the numerous wells on the road's side. Their stopping so often made our progress very slow indeed” (ibid, 419-20).

Pester's perfunctory tone suggests that bearers fainting was not extraordinary. The many and repeated 'drops', moreover, indicate extreme dehydration, on one hand, and extreme insouciance, on the other. Other accounts mention drops due to missteps but none due to fainting on the go. Either Pester's were isolated incidents or others travellers omitted them from their narratives. There are two possible reasons for Pester's apparent candour. First, his grand-nephew published his diaries posthumously. Second, this grand-nephew did so for the purpose of contributing to posterity a detailed account of the war (Pester, c1900). He and the publishers might have sent to print seemingly unconscionable conduct for the sake of veracity or to highlight the severe condition of the British victory. In either case, by riding human beings till they collapsed Pester and his fellow soldiers outsourced the strain and suffering from their European constitutions to those of hired low-caste Indians.

Mobile opposition

Despite the hardships of their profession and social position, palanquin bearers found opportunities to challenge the colonial traveller-bearer relationship

by the palanquin's mobility. In the interstices of travel – the plains, forests, valleys and rural stretches – between departure and destination, the British traveller lay relatively isolated. While many travellers had some command of one or more Indian languages, their communication and cultural savvy was often low. A footnote by Emma Roberts indicates an inexperienced British traveller's ability and inclination to communicate with bearers: "A very few words will suffice to carry a dak traveller over India. Ootow (lift up), jeldie joio (quickly go), pinneheeptmee low (drinking water bring); and in answer to all questions, dustoor ca nurste (do according to custom)" (1835, 209). The traveller's movement, moreover, depended on the cooperation and ability of four or more poorly paid men – who were often jogging in the opposite direction of their homes and families. If they stopped or quit, the traveller was not only stranded in unfamiliar territory but also in the Indian climate. Bearers, as many travellers acknowledged, were generally honest and reliable (Mundy, 1832, 277; Orlich, 1845, 265; Sleeman, 1844, 3-4). In fact, those who 'contested' the traveller-bearer relationship did so in the face of unjust treatment. Their means of contestation, however, were limited and characteristic of a subordinate group. Bearers resorted to several 'weapons of the weak', or subaltern tactics, such as avoidance, rumour, striking, desertion and humour (Guha, 1984; Scott, 1990).

Bearers' least confrontational tactics were avoidance, 'foot-dragging' and rumour. While few travel narratives recorded their messages, bearers relayed information amongst their wider community. Williamson wrote of the "commonwealth" bearers formed in and around Calcutta c1800 (1810, 301). If a passenger mistreated a bearer, none could serve this offender, or risk ejection from the union. Williamson also reassured the would-be traveller that dawkh routes were well supplied with bearers and stage rates were well

settled. However, if the 'gentleman' had a reputation for "using his servants ill", he could expect difficulty in finding willing bearers (Williamson, 1810, 308-10). An anonymous traveller from 1843 likewise wrote that at bearer relay changes the 'fresh set' observed or asked the previous bearers whether the traveller gave bucksheesh (a customary gratuity). If not, they jogged at a slower, more jolting pace (Carey, 1964, 284). Bearers also appraised and passed along speculation regarding their passengers. George Trevelyan wrote that it was not uncommon to wake up at a rest break or the end of a stage to hear the torch bearer pronouncing "to the satisfaction of his audience that you are of a lower caste than the Sahib at the last dawk bungalow, because he wore a collar and waistcoat, while you travel without those badges of rank" (Trevelyan, 1977, 220).

Humour was another form of soft resistance, which bearers leveraged in the service of their pay, dignity and amusement. In particular, they used their chant. The chant mainly served to warn of surface conditions, obstacles, turns and gradients: the front bearers called out and the rear bearers, in turn (who could not see ahead), confirmed the call by calling back. This call and reply continued hour after hour. Bearers also chanted to pass time, encourage one another and to mock or supplicate the rider (Opler and Shukla, 1968). And the rider was, aurally, trapped. For the duration of the stage their ears lay a few feet from the bearers' mouths.

Bearers generally received their pay in advance and bucksheesh at the end of a stage (Williamson, 1810; ALS, 1828; Stocqueler, 1844). So some bearers used the transit time to augment their salary via charm, or to tease their charge, or both. Almost all quips addressed bearers' primary concern: the rider's mass. A longtime Bengal resident wrote that bearers "beguile the hours with sug-

gestive chants as to the weight and the dignity and the generosity of the admirable passenger, venturing the assurance that according to the weight of that heavy load of opulent and kindhearted humanity so their reward will be" (Hart, 1906, 96). Acland wrote that when the bearers changed at a relay point, "on taking hold they very often cry out, 'Ah! my brother, my child!' but with me they generally make an addition to this – "'Ah! Ah! my brother, my child, my elephant!'" (Acland, 1847, 127). He also translated an improvised song in which the bearers mocked his weight, compared him to an elephant, suggested abandoning him, reconsidered this and finished with the chorus 'jump along quick'. "Suiting the action to the word", he kicked into a bone-rattling trot, repeating the chorus "until they were obliged to stop for laughing" (ibid, 127). Mrs Acland's bearers also invented a tune. They sang a gentle rhythm, complimented her weight and looks, and made their refrain 'take care, take care'. Thus they matched cheek with flattery, retaining overall wit.

Such humour would have upended typical colonialist-subaltern interaction. On a day-to-day basis, colonialists (as I will discuss in Part IV) comported themselves with an authoritative air, or what James C. Scott would call a "credible performance of haughtiness and mastery" (1990, 11; Collingham, 2001, 140-47). Peter Gray has argued that British colonialists developed an obsessive fear of insolence and a requirement for deference from Indians (1995, 86). And George Orwell would write that his "whole life, every white man's life in the East, was one long struggle not to be laughed at" (Orwell, 1969, 95-96). That bearers felt confident enough challenge such codes suggests that they understood a traveller's vulnerability inside a palanquin and on the road.

Bearers' most confrontational tactic was to 'strike'. I enclose this term in inverted commas because travellers' accounts suggest that bearers rarely reneged on their agreed stage (distance). Instead, travellers, needing and wanting to proceed as expediently as possible, sometimes encouraged or coerced their bearers to proceed through difficult or unsafe conditions, to proceed without adequate rest or food, or to proceed past the contracted distance (Dunlop and Inverarity, 1858, 266; Graham, 1878, 62; Orlich, 1845, 259; Pester, c1900, 120). Sometimes, however, bearers refused to go on. Moreover, they could capitalise on geographical, meteorological and diurnal conditions.

I began the introduction to this thesis I began with three vignettes. One recounted the botanist Joseph Hooker awaking in his palanquin, stationary, on the ground, in the rain, at 4am, while his bearers smoked their hookah. Hooker knew little of Indian culture, spoke no Hindi or Bengali and relied on his father's extensive contacts for hospitality and advice (Endersby, 2008). At this time, early April 1848, a festival was taking place and Hooker found that while he had 'laid a dawk', no bearers arrived.²⁷ His host, an Assistant Magistrate, managed to secure 12 bearers to take him 12 miles. He had prepaid his dawk to Darjeeling, so the "handsome douceur" these men required cost Hooker extra (1854, 99). On the morning Hooker awoke in the rain, his relay was again absent. He was also 14 miles from the next village. At first, he "lost all patience". What his ire entailed was not published. In any case, it was unsuccessful. He then waited and "entreated ... for several hours". This extensive negotiation is significant; after setting the palanquin down in the mud and rain in the middle of the night and miles from help, the bearers did not

²⁷ This festival was possibly the spring (usually early April) Hindi festival of Ugadi.

capitulate to his anger nor, at first, to his appeals. The time frame and the verb entreat suggest that Hooker genuinely implored them to continue. Colonial travellers rarely entreated – at least in print. Finally, not only did the bearers elicit a “further disbursement”, Hooker walked the 14 miles while they carried his empty palanquin. Dr. James Johnson assertion that the palanquin was “cheap, elegant, and convenient, on the sultry plains of India” did not acknowledge how the simple act of stopping could invert each characteristic (1818, 409). If bearers strategically decided to give up, the palanquin became expensive, awkward and vexing.

The bearers thoughts do not exist, so far as I am aware, on written record. Like many subaltern voices, the 'imperial archive' left them mute (Guha, 1983; Richards, 1993). From the circumstances, however, it seems unlikely that they did not comprehend and avail themselves of Hooker's vulnerability. He was alone, miles from the nearest villages, negotiating through a translator, loaded with supplies and specimens, and unfamiliar with topography and routes (Hooker, 1854, 97-99). We can also, following Ranajit Guha, read against the grain of Hooker's account (1983, 16). In addition to the candid use of the verb entreat, Hooker's expressions “coolly smoking their hookahs” and “handsome douceur” betray resentment. Furthermore, Hooker spent many pages of his *Himalayan Journals* travel narrative assessing – and disparaging – the appearance, cleanliness, intelligence, religious beliefs and morals of local ethnic groups (1854). That low caste, scantily clad and uneducated labourers leveraged their 'power' against him inverted the treatment Hooker had become accustomed to as a member of the colonial ruling class, well-connected son and privileged guest.

Palanquin bearers made use of similar, more overt but less confrontational tactic: desertion. They typically deserted as a means of defense or retribution in the face of actual or likely mistreatment (Mundy, 1832, 229-30; Burton, 1851, 250-52; Russell, 1852, 131-32; Graham, 1878, 60-62; Rousselet, 1882, 603). Explicit and implicit mentions of British travellers physically abusing their bearers come in travel accounts and in fiction (D'Oyly, 1828, 254-56; Roberts, 1835, 209-11; Burton, 1851, 250-52; Trevelyan, 1869, 93-137). The former, considering that authors avoided staining their reputations, suggests that maltreatment of bearers was socially acceptable to perpetrate in early nineteenth century British colonial society. The latter affirms this and suggests that it was also common to read about.

In a 22 page description of dawk palanquin travel, the author and traveller Emma Roberts illustrated the motivations for and consequences of a desertion:

Raw young men, and sometimes even those who have not the excuse of youth and inexperience, are but too apt to amuse themselves by playing tricks with, or beating, their luckless bearers, who are not unfrequently treated like beasts of burthen. They have it in their power to retaliate, and when provoked to excess, punish the offender, by putting the palanquin down, and making off to the jungles. A three or four hours detention upon the road, perhaps under a burning sun, is the consequence, and it would require a very vivid imagination to conceive a more disagreeable situation, especially to a person wholly unacquainted with the country, and the means of procuring a new set of bearers to carry him on. (Roberts, 1835, 209-10)

Godfrey Mundy, a soldier and author, issued a similar warning: "The prudent tourist will ... keep his cane in subjection" for at the first signs violent intentions the bearers might abandon their employer "in the middle of an

unfrequented road, under a temperature even more fiery than his temper" (ibid, 230).

Thus the palanquin could convert from a device which sheltered passengers to one which exposed them to the discomforts and medical risk of heat. While such bearers did not likely understand the extent of European travellers' anxiety over the climate, they almost certainly knew the gravity of stranding a foreigner in unfamiliar territory under the midday sun. Neither Johnson nor Williamson's handbooks advised exposure to the sun. Left stranded at the roadside – especially if seething – the traveller could not maintain 'temperance' or 'coolness' (e.g. Johnson, 1813, 1818; Williamson, 1810). In these instances, moreover, notions of robust a temperate character or a colonial authoritarian air appear doubly absurd. The sheer helplessness of a climate-anxious, linguistically challenged and disoriented foreigner at the side of the road seems the definition of effete (Rosselli, 1980). Finally, the 'breakdown' of a bearerless palanquin recalls the traveller's hybrid subjectivity. Following the terms of John Law, a full compliment of bearers rendered the traveller mobile, durable and able to return. Sundered from their vehicle, 'the traveller' ceased to travel and became stationary, delicate and delayed. A strike or desertion indicates how insufficient and dependent the British palanquin traveller was and 'the traveller' is as a term.

Conclusion

In this chapter I have sought to understand how a particular form of mobility mediated travellers' experience and depiction of landscape and climate. Like Driver and Martins' *Tropical Visions in an Age of Empire*, I foregrounded the role of dwelling to interpretation and aimed to include in my analysis the agencies of local Indians, material technologies and lived experience. While much of the tropicality and travel literature studies people, publications and places and attends to questions of representational practice and European subjectivity (Arnold, 2006, 1996; Bowd and Clayton, 2005; Driver, 2004; Livingstone, 1999, 1991), I explored how the palanquin's mobility shaped travellers' experience, interpretation and depiction of the Indian landscape and climate, as well as the palanquin as a conduit for social relations. Taking the vehicle as a unit of analysis emphasised the role of vehicular structure, schedule and motion.

A major focus has been visual mediation. The palanquin's route and 'jog-trot' pace choreographed the passing scenery. Monika Büscher has argued that interpretation of landscape is as much about the flow of sequential vantages as about the topography itself (2006). As garden designers, highway architects and anthropologists have asserted, physical movement mediates perception and appearance (Hvattum et al., 2011, 1). Representation, too, is forged in the passage from site to site, and sight to sight. Both Moyle Sherer and Vivian Majendie employed 'locomotive' or 'live' prose to mimic their palanquin's movement, steering the mind's eye circuitously through Madras and Calcutta, and thereby driving a series of local faces and facades toward

the reader. Repetition, alliteration and onomatopoeia were used to *reproduce* – as much as represent – the tempo and tactility of footfalls, chanting, bounce and sway. By such descriptive artifice, each author maintained fidelity to phenomenological encounter. Such prose suggests that vehicular mobility mediated description. Whether the palanquin – purely and subconsciously – shaped these travellers' language, or whether they – retrospectively and consciously – chose motion-imbued metrical structure, the result stands: the palanquin's route and movement compelled Sherer and Majendie to devise a representational mode which conveyed the perceptual nature of their encounter with the urban landscape.

While this chapter has concentrated on the European traveller's mobile gaze, I have also explored the reciprocity of this gaze. Travellers were marked visual objects and economic resources. The palanquin's sliding door forms the literal and figurative focal point of this mutual observation. When open, the traveller submitted themselves to the surveillance of myriad native eyes crowding the bazaars, Black Towns and back streets of urban India. Partially concealed yet equally visible, the open palanquin door approximated a mobile display cabinet: the touring European jogged around town for all to see.

The aesthetic, perceptual and representational effects of night have also been central concerns of this chapter. The norms of early nineteenth-century diurnal schedules and seasonal travel meant many palanquin travellers witnessed Indian surroundings by starlight, torchlight and firelight. Darkness and illumination amplified the aesthetic impression and communal nature of landscape. In contrast to the 'complacent normalcy' of daylight, firelight foregrounded what Will Self calls the 'shape-shifting' capacity of darkness and affirms John Wylie's contention that the landscape-observer does not be-

hold a passive, inert surface but a pulsing, milieu-in-forma-tion (Self, 2010; Wylie, 2006, 478). Darkness and illumination also emphasised the communal nature of a night-time landscape encounter. The travellers Roberts, Parkes, Graham, Adams and Acland encountered 'nightscapes' through a kind of installation: their travelling entourage, encamped or on the move, set against forest, river, pasture or plains. This suggests two points. European encounters with picturesque Indian landscapes were, as well as projective 'ways of seeing', a co-constituted relation to which the wider human and non-human team contributed. Travelling around India with aesthetic notions of the picturesque, the sublime and so on, therefore reveals not only "the portability of European taste" (Schwartz and Ryan, 2003), but also the portability of landscape; the daily transportation and installation of an exotic Indian foreground.

The optical effects of human vision at night also furnished an unorthodox view of tropical landscapes and tropicity. Night stages reduced the visibility of a landscape's undesirable un-tropical arid colours while coating it with 'cool' shades of black, blue and grey, thus 'deceiving' the eye with a sense of verdure (e.g. Roberts, 1835, 220). Perhaps above all, darkness afforded imaginative leeway. It optically altered the landscape, mixed topography with cultural associations and invited literary embellishment. This recognition also suggests two points. Darkness had an ephemeral and transformative power which amplified aesthetic impression, and tropical exoticism was not only a topographic quality or mental lens but also a transitory intensity which rose and fell according to diurnal conditions.

The insights of night, darkness and illumination should change how we conceive of a research landscape. Cultural geographers have researched and theorised landscape largely by the light of day, thereby overlooking half of

each 24 hour day and much of human experience. Whether as aesthetic framework (Andrews, 1990), artistic and architectural expression of ideology (Cosgrove, 1984; Daniels, 1993), icon (Cosgrove and Daniels, 1988), text (Duncan, 1990), cultural construct (Barnes and Duncan, 1992; Schama, 1995), colonising discourse (Mitchell, 2002), normative practice (Matless, 1998), or enfolding of self and world (Rose and Wylie, 2006; Wylie, 2006, 2002), landscape appears under the perceptual conditions of daytime. In contrast, the experiences of Roberts and others travelling by dawk at night suggest that not only does this scholarly trend bypass a potent suit of encounters and depictions (e.g. Jakle, 2001, vii; Koslofsky, 2011, 10-14), it also contradicts the quotidian routine and necessities of tropical travel. The palanquin's mediating influence was as much about diurnal schedule as sheer movement.

The final section of this chapter turned from landscape to the palanquin's primary functions of travel and climatic shelter. Physically, the palanquin's roof, screen walls and bottom, venetian shutters, tatties and sliding doors mitigated the heat and glare. And like the cultural setting of a cantonment, the palanquin sheltered the traveller psychologically. Inside and en route they reclined, read, slept, drank, smoked and gazed out at the landscape. This shelter and relative comfort, however, was supported by human shoulders. Effectively, palanquin travel outsourced the strain of mobility from the traveller to the bearers, who bore the burdens exertion and exposure the Indian climate. Travellers' mobility therefore rested on the political economy of colonialism, and thus the privilege of certain bodies to rest while others were converted to motive power. The capacities of and demands on bearers' bodies betray the irony of British colonial discourses which depicted eastern Indians as effeminate and indolent – supposedly rendered so by the tropical heat and fecundity, and vegetarian, rice-based diets. While 'robust'

European specimens lay sheltered inside, supposedly effete bearers jogged their persons and belongings through the Indian plains, rivers and forests. Indeed, some travellers literally ran their human motors till they 'dropped' (e.g. Pester, c1900).

Despite this unequal relationship, the palanquin's mobility left travellers vulnerable. Between towns, villages and staging bungalows bearers exploited the travellers' geographical isolation and social inexperience through 'weapons of the weak', such as avoidance, 'foot-dragging', humour, striking and desertion (Scott, 1990, xi). These forms of resistance – in particular, striking and desertion, but also humour – inverted the palanquin from mobile shelter to stationary hazard. We can therefore understand dawk travel as a mobile 'site' in which the dominant (travellers) and the weak (bearers) were caught in a contested web of social relations.

Part III: The elephant

Elephants, travel and landscape

In the first half of the nineteenth-century, few roads, much forest and seasonal watercourses stretched between the Arabian Sea and the Bay of Bengal, an area as large as mainland Europe. During the wet season, from June to September, watercourses made smooth highways. From November to May only large rivers remained navigable; nullahs mostly ran dry. Mughal rulers maintained rudimentary roads, sometimes paved with brick, mainly on trade-routes between cities (Deloche, 1993). Along these routes ran the dak network: mail runners, palanquin bearers, bullock carts and bungalows. If a European travelled between Delhi to Calcutta before 1860 they typically took a steamer along the Ganges or a palanquin. Elephants went where boat and feet did not reach. Travellers used them for cargo, comfort and sport, but also for authority. The Company still derived its power nominally from the Mughal emperor in Delhi, and practically from their emulation of and relations with regional Indian nobility. British travellers – mainly soldiers, officers and administrators – represented the Company and its expanding clout. They moved with appropriate pomp and dignity so as to avoid confrontation, on one hand, and facilitate territorial access, on the other.

The experiences of Reginald Heber illustrate how the elephant helped overcome the challenges of early nineteenth-century travel. He departed on his first tour in June 1824 and took nearly 10 months to cross northern India. Heber went where he could by boat: from Calcutta up the Hoogly, along branches of the Bramhaputra, then west up the Ganges for several hundred kilometres as far as Allahbad. Here, in September, Heber began his overland

journey, north and west through the kingdom of Oudh, then back into Company lands and south to Delhi, Rajasthan and Bombay.

Before starting overland from Allahbad he expanded his retinue. He purchased a Turkestan horse to ride, five ponies for his personal servants, 24 camels and eight bullock carts for camp supplies, a horse and buggy for his archdeacon, hired 40 further servants, uncounted 'coolies,' 12 tent pitchers and was provided with an escort of 35 sepoy under three European officers – an unusual entourage for an English bishop (Hughes).²⁸ To his Romantic amusement, Heber's "whimsical caravan" filed off, "looking exactly like the advance guard of a Tartar army" (Heber, 1829, 297).

The horse and ponies Heber bought were a second-best option. He had planned to procure elephants but none were "to be begged, bought, or borrowed in Allahbad, and no reasonable hope being held out of my procuring one in Cawnpoor" (the next city on his route) (Heber, 1829, 293). His lack of elephants immediately stymied progress. Before departing Allahbad, Heber "had the mortification to find that few of the things I had brought with me from Calcutta could be put on the backs of camels" – so he hired carpenters to rejig his trunks (ibid, 294). On the third morning rain-soaked tents proved too heavy for the camels, forcing the entourage to wait for sun, heat and "drying winds" – three things Heber's party sought to avoid (ibid, 300). Indeed, they travelled mostly by night to avoid the midday heat. The loaded wagons departed at midnight, Heber and his archdeacon by 3am, the remaining servants disassembling camp and trailing after. Each 'morning,' they "picked [their] way with difficulty in the dark, through watery roads

²⁸ A 'sepoy' denotes an Indian, as opposed to British, soldier in Company employ.

and wild open country" (ibid, 308-09). Hoofs, wagon wheels and stocking brown feet slogged slowly through the muck. Night rains saturated camp on the seventh night and, "the tents could not again be moved without a thorough drying" (ibid, 312). On a "fine" day, when gear and roads remained relatively dry, "Still [they] were seven hours going sixteen miles" (ibid, 316).

At Cawnpore Heber was, after all, able to hire two elephants. Heber's team crossed the Ganges and struck north into the kingdom of Oudh. Starting early again on his second 'morning' from Cawnpore, Heber found the elephants "extremely convenient in the commencement of a march, while it is yet too dark to ride on horseback". While it "was very dark, and the road excessively bad, through a country naturally broken and marshy, and now rendered almost impassable by the recent rains", Heber did not record further delays. During his journey he met with local nobles and religious leaders. When he received invitations to formal audiences and feasts, Heber arrived on his largest elephant, fully caparisoned. He also mounted the howdah to sight-see. While Heber passed through Dacca he visited Shiva temple by elephant, "since tigers sometimes, and snakes always, abounded there" (ibid, 150). He had worried about Indian climate and 'salubrity' even before he arrived at his diocese in Calcutta (Hughes 1986, 82-84). Yet, striking north through Oudh towards the Himalaya on his elephant, above the heat, fanned by wind and under a parasol, Heber felt optimistic:

In fact, on an elephant's back a traveller is so well raised above the reflected heat of the plain, and gets so much of whatever breeze is stirring, that, at this time of the year and in these latitudes, I should care little for the sun even at the hottest time of the day. (Heber, 1829, 395)

Heber also recognised his hired elephants' consciousness and subjective agency. He witnessed its understanding of language, as well as its obedience and independence (ibid, 61, 354, 391). When his elephant helped rescue an injured elephant, Heber was "much struck with the almost human expression of surprise, alarm and perplexity in [his elephant's] countenance" (ibid, 322). Another time, while watching his elephants feed, Heber's attendant told him "He is glad to see you again", and Heber "was certainly much struck by the calm, clear, attentive, intelligent eye which he fixed on me, both while he was eating and afterwards, while I was patting his trunk" (ibid, 354).

Many social and material means assisted Heber along the way. As animate vehicles, elephants integrated with the the ponies, porters, sepoy, tents, maps and other components of Heber's equipage, thereby rendering Heber sufficiently mobile, secure and credible. I use the word 'integrated' because Heber's journey was a multispecies accomplishment. His hired elephants enabled him to overcome the challenges of topography and distance, as well as to social norms of status and display. In other words, Heber's hired elephants merged with his physical and social person. The elephant-borne traveller was more-than-human; they were an assemblage of actors and agencies. In turn, the elephant shaped how the traveller encountered and observed the Indian landscape: geographically, by shaping or enabling the route; practically and phenomenologically, by functioning as a mobile prospect and prosthesis; and reciprocally and iconographically, by through its symbolic presence seen in the landscape.

Yet there is more to the elephant. Mature, trained, equipped and 'driven', the elephant itself is an assemblage. It is an intelligent and social animal which thinks and acts independently and in conjunction with its human controllers

and partners. It has a long history of human cultural interaction and significance. Finally, each elephant has its own personality and idiosyncrasies. The elephant therefore requires biological, behavioural, historical, and even individual understanding. How, then, to conceive of the elephant as an actor, partner and vehicle? And, more broadly, where do elephants fit in as subjects of historical and geographical research?

Animal geographies and transspecies history

A diverse body of work now thrives in geography and cognate disciplines that studies the ‘more-than-human’ aspects of human-animal encounters and the ‘beastly places’ of animals contributing to the hybrid geographies of the anthropocene (Emel et al., 2002; Philo and Wilbert, 2000; Whatmore and Thorne, 1998; Whatmore, 2002; Wolch and Emel, 1998). Human geographers have questioned ontological binaries (Bosco, 2006; Murdoch, 1997; Whatmore, 2002), attended to the influence of materiality (Whatmore, 2006; Jackson, 2000; Hitchings, 2003; Thrift, 2007), rethought the spatiality of wildlife (Whatmore and Thorne, 2000), and expanded political and ethical possibilities (Hinchliffe, 2007; Hinchliffe et al., 2005; Whatmore, 2002). This research is part of a broader posthumanist turn across the humanities and social sciences that challenges the privileged position of the modern human subject and aims to ‘animate’ scholarship by including those subjectivities, sensibilities and agencies previously excluded from the consideration of Enlightenment rationality (Castree and Nash, 2006; Castree et al., 2004).

Asian elephants, a cosmopolitan and charismatic species (Barua, 2013a; Sukumar, 2011; Whatmore and Thorne, 2000), have attracted attention across

a range of disciplines: biology, ethology, zoology, veterinary science, conservation, anthropology, sociology, human geography as well as classical, European, southeast Asian, Indian and colonial histories. In social science research, several important studies inform theoretical and empirical inquiry. Anthropologists, historians and geographers have studied elephants as semiotic resources in colonial knowledge (Sivasundaram, 2005), elephant-mahout relations in tourism (Hart and Locke, 2007; Locke, 2011; Hart, 2005), elephants as companion yet global celebrity-species (Barua, 2013a; Lorimer, 2010, 2007), and as material-semiotic resources caught up in global networks of wildlife conservation (Barua, 2013b; Jadhav and Barua, 2012; Whatmore and Thorne, 2000, 1998; Whatmore, 2002). Notably, Jamie Lorimer and Sarah Whatmore have used elephants to challenge humanist discourses and nature-culture boundaries and attend to issues of non-human agency and hybridity (Whatmore, 2002; Lorimer, 2010; see also Hinchliffe, 2007).

Collectively, this body of work provides salient considerations for an elephant-based historical geography of travel, mobility and landscape. First, elephants integrate with human individuals and societies. Since 2000BC, cultures on the subcontinent have tamed elephants, used them as war machines, established sanctuaries for their protection, considered them sacred, and incorporated them into religious beliefs and iconography (Sukumar, 2003, 70). South Asian trainer-elephant relations have long mingled the human, the animal and the cosmos. The elephant spans boundaries between animality, personhood, and divinity, which are each understood as “permeable and contingent, conflicting even, but nonetheless coextensive” (Locke, 2013, 87). In practice, like horse and rider, human and elephant unite bodily and psychologically through years of mutual habituation to form a relation of “co-being” (e.g. Maurstad et al., 2013; see Hart and Locke, 2007; Locke, 2011). Elephants

thus exemplify the utility of decentering the historical human subject and foregrounding the “messy heterogeneity” of human-animal affairs so as to better understand that subject (Whatmore, 2002, 147).

Second, elephants possess subjective agency. Contemporary biological, ethological, anthropological, geographical and historical research concur that elephants are intelligent, social and intentional beings which influence their lifeworld. In Sri Lanka, India and southeast Asia, scholars find that elephants shape the lives, societies and economies of the life-spaces they co-habit. They raid crops, destroy property, trespass, work for humans, attract tourists, impact policy, and constitute living religious symbols (Barua, 2013b; Hathaway, 2010; Jadhav and Barua, 2012; Lorimer, 2010). Nineteenth-century accounts tell a similar story. Elephants babysat infants, remembered riders, took retribution, raided markets, exacted tribute and escaped captivity (Illustrated London News, 1863, 447-48; Heber, 1829, 354; Roberts, 1835, 249). Even British colonialists and travellers, as I will discuss below, evaluated them as more-than-animal individuals. Elephant gender also influenced such subjective agency. While mahouts worked with both male and female, Asian elephant’s matriarchal societies and the tendency of adult males to live alone or in ‘bachelor groups’ and experience annual hormonal outbursts (Poole and Granli, 2008), shaped their cooperation or lack thereof (as is apparent in the section *Transspecies colonial travel*). In short, particular elephants impacted the particular lives, projects and thinking of local and foreigner alike (Sivasundaram, 2005; Sukumar, 2011, 2003; Wemmer and Christen, 2008).

While historians have investigated various interconnections between humans and the Asian elephant, they tend to write humanist history: elephants are tools, possessions, symbols and other objects of human activity. For ex-

ample, in his 'Trading Knowledge: The East India Company's Elephants in India and Britain', Sujit Sivasundaram "uses" the elephant "as a point of focus" to demonstrate the significance of colonial exchanges of knowledge to the emergence of nineteenth-century science (2005, 27). For Sivasundaram, the elephant is a cipher: a figurative object of little importance outside of human meaning and affairs, and which appears to have no will or consciousness of its own. By contrast, Nance advances an alternative, interdisciplinary approach to understanding past elephants: transspecies history (2013). Her approach combines a traditional, humanist emphasis on human meanings *while also* emphasising the agency of elephant individuals. Significantly, Nance draws upon contemporary biological and ethological research to triangulate amongst historical sources. The key to transspecies history, writes Nance, is to recognise that humans and animals live in symbiosis and that there has never been a purely human space in history. Therefore historians should use 'symmetrical' analysis to write histories where humans are agents in events which are also non-human. Moreover, because humans and elephants lived in symbiosis, a history which does not study the elephants sells short the humans who lived with them (2013, 7). Treating animals as sentient individuals thus strives for the fullest historical explanation – and strives to avoid self-deception and self-flattery. From this perspective, elephants are subjective historical agents who left 'traces' on the historical record of their behaviour, intentions and character.

In the literature review I suggested that 'the traveller' is an inaccurate and insufficient category because it elides the role of the vehicle and thus the many non-humans which participated in and facilitated travel in India. Further, I compared the historical work of John Law and Richard Sorrenson on ocean voyaging with the word vehicle's meanings to illustrate how travel in-

tegrates person and vehicle to the extent that it produces a qualitatively different subject: the vehicularised-traveller – or passenger. Law argues that it is mistaken to treat artefacts “in isolation from, or at best as a function of, social factors” (Law, 1986, 235). Artefacts, rather, interwove with social factors “and their form is thus a function of the way in which they absorb within themselves aspects of their seemingly non-technological environments” (ibid, 236). Elephants may not seem like technology, vehicles, actors or partners. Yet by riding – and thus merging with – their intelligence, psychology, dexterity, apparatus and symbolic qualities, Europeans traversed large expanses of India, saw Indian landscapes and saw elephants in those landscapes.

As Jamie Lorimer has noted, “We know very little about the materialities of interspecies relationships. Traces of human-elephant companionship must be gleaned from the margins of existing working through creative reading and synthesis” (2010, 495). In my use and interpretation of historical records, I apply the archival approach of transspecies history. While I work primarily with the human(ist) accounts and meanings of elephant vehicles in European writing and imagery, I also draw from contemporary ethology and ecology studies to supplement and triangulate amongst historical data, especially regarding elephant physiology, psychology and sociality. Where possible, I also strive to convey the individuality of particular elephants. I return to these methodological concerns for more-than-human humanities in the conclusion.

In what follows I consider the trained elephant as a vehicle, as a historical actor and as part of the landscape. I focus where and when European travellers in India primarily used elephants: for overland camp transport and

formal display in the early and mid nineteenth-century.²⁹ First, in Section 9, I address Latour's two questions – “When we act, who else is acting? How many other agents are also present?” – by 'assembling' the elephant-borne traveller. I trace the physiological, psychological, material and human components which constituted a trained riding elephant, including the cognition, dexterity and volition it contributed to travel. This fusion of persons, elephant and material technologies stretched the limits of human-animal relations and made the traveller capable of long-distance overland transport through India's terrain and climate. Next, in Section 10, I discuss how the elephant mediated landscape. In riding their elephants from place to place, travellers observed India from the elevated, mobile perspective of the howdah. The elephants' height, dexterity and senses shaped how travellers saw their surroundings. Finally, in Section 11, I focus on the journeys of two naturalists, Joseph Hooker and Valentine Ball, to show how the elephant served as an instrument and as a partner in scientific travel. Moreover, I discuss the actions of a few elephant individuals to analyse animal agency and European 'othering' of both hired animal and human assistants.

²⁹ I draw on but do not concentrate on British use of elephants for military activities and hunting; these topics merit specific attention and have been addressed elsewhere (e.g. MacKenzie, 1997; Sivasundaram, 2005).

Assembling the elephant-borne traveller

The elephant possesses excellent vehicular qualities. Just as polar bears are adapted to arctic climates, wild Asian elephants are adapted to “long-distance living” (Poole and Granli, 2008, 5). They inhabit a 200-235 square kilometre ‘home range,’ spend up to half of each 24 day walking, engage in some manner of motile activity for 20 hours per day, have the lowest energetic cost of walking relative to mass of any land mammal, possess a pharyngeal pouch for water storage, can communicate over large spaces and have evolved a tight-knit, cooperative society (Langman et al., 1995; Poole and Granli, 2008). Though they moved at the sedate pace of 3-4 miles per hour and required time to forage, feed and rest, elephants covered 15-20 miles per day loaded with 1000 pounds of rider and baggage (Sanderson, 1907, 86-7). Besides, elephants made all-terrain vehicles. In his *East-India Vade Mecum*, Williamson wrote that the elephant's broad feet, power and intelligence “qualify him, almost exclusively, for the transportation of tents, and heavy baggage, in such parts of the country as remain heavy or swampy during the more settled part of the year” (1810, 430). The elephant also swam and forded rivers, a crucial capacity in a land of seasonally variable rivers and an era of few bridges. In addition to physical capabilities, elephants require travel and physical motion for psychosomatic reasons. In severely restricted ‘ranges,’ such as a zoo or circus, elephants suffer a variety of medical disorders: arthritis, foot problems, infertility, reduced life span, depression, irritability and erratic outbursts (Clubb et al., 2008; Hess et al., 1983; Kane et al., 2005). Conversely, active, wide-ranging elephants live longer, healthier and happier lives (Clubb et al., 2008; Hess et al., 1983; Poole and Granli, 2008). In

addition, the elephant's natural sleep schedule – two to three hours per day, taken about midnight – allowed their use at almost any time, including overnight stages and evening tours (Ball, 1880; Edwards, 1866, 238; Gay, 1877, 264; Graham, 1878, 337; Hooker, 1854, 215). Night marches complimented Europeans' heat-avoiding schedules. As Heber's routine showed, many set off between midnight and 4a.m. to finish the day's stage before noon, both for their comfort's sake and to relieve the fatigue and dehydration of porters and pack animals.

But to make a vehicle out of an elephant – one cooperative and healthy enough to march for days and nights on end – was a complex process. The elephant had to be captured in the wild and 'broken.' It required years to mature physically and socially. It needed paraphernalia, maintenance, food and attendants. Most importantly, a riding elephant required a *mahout* to raise, train, tend and 'drive' it. The mahout-elephant relationship constitutes the first and fundamental component of a riding elephant, on top of and through which the elephant's abilities and apparatus could operate.

The mahout

European travellers who rode an elephant in India mounted an ancient tradition. The Indus Valley Civilisation first tamed, trained and used Asian elephants around 2000BC (Clutton-Brock, 1981, 144). Their intelligence, obedience, strength and dexterity made them prized and practical tools. Indian rulers and magnates continued to employ elephants until the early twentieth century for transport, haulage, war, ceremony and display (Sukumar, 2003). By the early nineteenth century mahoutship (elephant training, tending and

control) was a three millennia old profession and aligned with the nobility who typically employed mahouts. The term retains etymological vestiges of this prestige: the Hindi *mahawat*, from the Sanskrit *maha-matra*, or “great in measure”, signifies a high ranking officer (Yule and Burnell, 1886, 409).

The early nineteenth-century mahout-elephant relationship required several steps. First, the elephant was captured in the wild, usually from the forested hill districts in Bengal, Assam, Madras or Ceylon (Sanderson, 1879). Once an elephant was ‘broken’, a mahout was assigned to it according to hereditary or vocational hierarchy. The elephant then became kin. The mahout, his wife and his children collectively fed, bathed, supervised and ministered to the animal. One traveller noted that the mahout’s tent, “in which he resides with his wife and children, is close to the elephant, so that the animal lives as it were with the family” (Orlich, 1845, 277). The relationship cultivated mutual trust and affinity. Familial inclusion was not happenstance. Elephants require intimate social bonds with human partners akin to those they form with fellow elephants (Bradshaw et al., 2005; Byrne et al., 2009; Poole and Granli, 2008). Another traveller described a mahout who had elephant baby-sit his toddler: “He would sometimes say to the sagacious creature, ‘Take care of the child’; and [the elephant] would then watch it with care and kindness, and not let it go out of his reach” (Russell, 1860, 209-10; see also Shipp, 1843, 220;

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Illustrated London News Oct 31 , 1863, 447-48). Thus an elephant might meet its future mahout as he lay in the cradle. As it matured, learned commands and adapted to its mahout, the elephant began ‘work’ at 10-15 years old, reached optimum utility at 35 and retired at 60, sometimes older (Sanderson, 1879). The mahout-elephant relationship typically lasted for the

mahout's career. Thus a hired elephant might have years or decades more experience than the traveller atop. Furthermore, the mahout and elephant's personalities might mingle. Some hunters wrote that plucky elephants made plucky mahouts, and vice versa (Forsyth, 1889, 306; Pester, 1806, 85; Sanderson, 1879, 81-82).

Mahout-elephant communication also revealed inter-species mixing. While mahouts' control over their elephants was well-known, Heber was nonetheless amazed when the mahout spoke to his elephant like a person, "telling him where to tread, bidding him "take care,"—"step out," warning him that the road is rough, slippery, &c." – all of which the elephant appeared to heed (ibid, 61). Over a lifetime of daily intimacy, mahouts adapted skilfully and proprioceptively to their charge. They used nearly a hundred verbal and tactile commands and could stand atop a running or swimming elephant (Roberts 1835, 157). Often "The mahout says nothing", wrote Heber, "but guides him by pressing his legs to his neck, on the side to which he wishes him to turn, urging him forwards with the point of a formidable goad" (1829, 61). Verbal commands were not merely precise but persuasive. While coaxing his elephant up a rocky outcrop, one mahout "made use of the most endearing epithets, such as "Wonderful, my life" – "Well done, my dear" – "My dove" – "My son" – "My wife;" . . . all these endearing appellations, of which elephants are so fond" (Shipp 1843, 149).

The trained elephant stretched the limits of animality. In *The Empire of Nature*, Donald MacKenzie describes colonial military and hunting elephants as domesticated (1997, 183). Scientifically speaking, this is not correct: elephants

did not breed in captivity.³⁰ Mahouts passed down communal knowledge, training each animal afresh. The mahout was what Law would call “the embodiment of previous effort”: he manifested three millennia of traditional knowledge passed on and a lifetime of hereditary inculcation and intimacy (Law, 1986). The process of mutual habituation, cohabitation and familial integration changed the elephant’s social and emotional constitution (Bradshaw et al., 2005; Hart et al., 2008). This process, furthermore, was reciprocal: the elephant ‘taught’ the mahout its personality and capacities (e.g. Locke, 2011).

This extreme example of a ‘companion species’ suggests co-constitution in a literal sense (Haraway, 2008). The extent of mahout-elephant integration was made plain by its rupture, which often caused psychological damage (Bradshaw et al., 2005; Poole and Granli, 2008). The mahout ‘humanised’ the elephant by transforming it from untamed fauna to functional, human-adapted partner. In turn, the elephant ‘animalised’ its mahout, socially and kinaesthetically. The mahout’s identity, vocation, title and caste, his family, lifestyle, dwelling and children’s occupation were all bound to his elephant partner (Hart and Locke, 2007; Locke, 2011). The mahout-elephant relation provides an example of what Lorimer and Whatmore might call ‘involution’: “the melding and emergence of new forms” (of being) that bridge the human-animal gap and provide a way of conceiving human-animal interaction (Lorimer and Whatmore, 2009, 673; see also Hansen 2000). While the adjective ‘new’ does not apply here, the extent of corporeal, cognitive and psychological integration tests the imagination. And it was this hybrid coalition that constituted the vehicle which European travellers hired and joined.

³⁰ Elephants rarely breed in captivity. In the nineteenth-century India nearly all elephants were captured in the wild and then formally trained.

Elephant maintenance and the howdah

Training and mahout did not suffice to convert an elephant to a vehicle. Fuel and maintenance were essential. “Besides five or six hundred pounds of green fodder, an elephant must eat at least twenty pounds of some kind of grain daily, rice preferred, to keep him in working condition” (Ballou, 1894, 266). Per elephant, mahouts cooked 10-16 *chupatties* (unleavened loaves) of gram – “as large as the top of a hat-box” – to supplement the elephant’s own daily foraging (Heber, 1829, 354). This ration was “absolutely essential in order that the elephant may not decline in strength when he has to perform long marches every day” (Rousselet, 1882, 404).

Maintenance came in the form of washing and ministering to bodily ills. The daily bath was – and remains to this day – a cornerstone of mahout-elephant relations, second only to feeding, and doubled as a medical inspection (Hart and Locke, 2007). Travellers unanimously recorded how elephants delighted in their daily bath. Majendie recalled how his party’s elephants trumpeted “shrilly” as they padded down to the river, “in pleasant anticipation of the bath they were about to enjoy” (1974, 108). “The elephant lay extended”, another described,

whilst the Mahout, kneeling on the top of his unwieldy charge, diligently scrubbed the dark-polished hide of the animal with a rough piece of freestone—a species of shampooing which old “Anack” seemed to enjoy mightily, ever and anon expressing his approbation thereof by a complacent grunt, and a more vigorous flap with his ears. (Campbell, 1842, 129)

Maintenance fortified the elephant against the wear and tear of travel. Each day, during or after the bath, a dutiful mahout inspected the sole of each foot, removed impediments and treated injuries. Williamson wrote that while elephants' feet were "extremely apt to chafe, and wear away, at the soles, so as to render them completely unserviceable for a time", such degradation could be "prevented by *paying* them with astringent applications, so that the skin may be rendered harder, and the foot, in general, somewhat callous" (Williamson, 1810, 435-65; Hooker, 1854, 21, 40). Likewise, the hunter and naturalist James Forsyth, in a seven page appendix on the 'Selection and Treatment of Elephants', recommended applying ghee or oil to all areas "liable to crack, or suffer from the rubbing of accoutrements or from the sun" (Forsyth, 1889, 574; see also Vincent, 1876, 175; Rousselet, 1882, 404).

The joined the mahout-elephant assemblage by mounting the howdah. Unlike a horse's saddle, the resembled "A great chair ... framed seat" or even a castle – from which comes the name of the London precinct (Yule and Burnell, 1886, 325). The howdah came in various forms, functions and levels of ostentation, from a wooden bench to caparisoned 'state' howdahs of silver and gold inlaid with precious gems. For one traveller, it was simply "a seat used for riding elephants", while for another it was "a sort of open cage without a top" (Feudge, 1899, 650; Eden, 1867, 342). In general, the howdahs used by European travellers resembled a four-legged rectangular table flipped upside down with ropes to prevent the rider falling out, and a canopy or *chattah* (parasol).

Critically, the howdah's protected the traveller against what nineteenth century medical knowledge considered the greatest threat to a European: the Indian climate (Annesley, 1825; Johnson, 1818; Mair, R.S., 1874). Height raised

the traveller above dust and glare while canopy or chattah shaded them, providing a mobile microclimate.³¹ The howdah thus functioned as one of many preservatives against against discomfort and illness, alongside sun-helmets, flannel binders, spinal pads and white linen suits (De Caro and Jordan, 1984; Kennedy, 1990, 1996; Renbourn, 1957). As Heber wrote, “under the shade of chattahs ... on an elephant's back a traveller is so well raised above the reflected heat of the plain, and gets so much of whatever breeze is stirring”, he felt comfortable enough “even at the hottest time of the day” (1829, 395).

Heber's optimistic seat in the howdah nearly completes this assembly of the elephant-borne traveller. He did not sit on just any animal; he sat atop an intelligent, strong, dextrous, four ton, trunk-equipped animal physiologically and psychologically adapted to travel. His two elephants traversed 20 mile stages with 1000 pounds of canvas tents or human cargo through muck and rivers. To benefit from all this, however, Heber relied on his mahouts. The trained elephant comprised millennia of traditions and a lifetime of training, social relations, fuel and material technology. Only with all these interlocking components in place – and a retinue of guides, porters and assistants – did Heber and other early nineteenth-century travellers set out in the morning, or night, with full camp kit, to accomplish a day's stage.

³¹ Protection, however, depended on whether the traveller's howdah came with a covering. Without one, the traveller might be subjected to “boiling heat” for hours and “nearly baked alive on their elephants” (Eden, 1867; Hooker, 1854, 368; Parkes, 1850, 181).

A crucial component remains to the assembly of the elephant vehicle: subjective agency. During his travels, Heber noted his elephant's memory, its "calm, clear, attentive, intelligent eye", its eerie grasp of human language, and its obedience as well as inclination to disobey when frightened (ibid, 61, 354, 391). When his elephant came to the aid of another, half sunk in a roadside well, Heber was also "much struck with the almost human expression of surprise, alarm and perplexity in [his elephant's] countenance, when he approached his fallen companion" (ibid, 322). Heber was not the only British traveller to record their hired elephant's intelligence and volition.

While it remains impossible to know what an elephant thought, travellers accounts indicate that elephants made crucial calls. Elephant experts often recommended that the elephant be left to make decisions regarding movement and perception (Sanderson, 1879; Williamson, 1810, 430-445). Marjorie Handley, wife of a Forest Officer and seasoned wanderer, asserted that "Not a word too much could ever be said for the intelligence and common-sense of elephants" (1911, 28). When it came to physical movement over tricky terrain, she claimed it "the height of folly to interfere, or dictate to [an elephant], in the arrogance of human wisdom, against [its] unerring instinct" (ibid, 31). If an elephant was stuck, Williamson advised it "should, like a mule on a mountain, be left to himself, as he will manage with perfect prudence; whereas, if actuated by a *mohout*, (or driver,) he might be again plunged into difficulty" (1810, 432; see also Sanderson, 1879, 50-52).

Especially when negotiating rivers, slopes and precipices, travellers and *mohouts* relied on the elephant's judgement. When Burrell and his wife, lifetime

residents in India, went hunting in the Terai forests they “forded torrents and streams, the great wise beast first carefully trying the depths, or the soundness of the fern-clad bank, with his trunk, or by kneeling” (Burrell and Cuthell, 1893, 106-08). Not only did elephants make decisions independently, they disregarded or overruled commands (Pester, 1802-06, 85, 302; Heber, 1842, 391; Campbell, 1842, 260). The French traveller and pioneering photographer, Louis Rousselet, penned perhaps the most dramatic elephant decision recorded (Appendix 2). On an excursion near Bhopal, his mahout steered them up a mountain short-cut. After the elephant tip-toed across a “mere goat-walk” the mahout urged it a ‘thousand’ times to descend a sandstone ridge (Rousselet, 1882, 443). The elephant carefully tested each step its forelegs before committing its weight and finally refused to proceed. As the mahout raised his pike to spur the elephant forward, the stone detached and plummeted. “A moment more and we should all have perished in a frightful fall: the wonderful sagacity of our elephant had saved our lives” (ibid, 443-44).

The theatrical tone of this passage betrays Rousselet’s orientalist and romantic enthusiasm. In contrast to many British colonialists and travellers – and like continental Europeans such as Victor Jacquement and Leopold von Orlich – Rousselet sought the ‘India of the rajas’, rather than that of the British. He spent most of his six years in the Princely States of Gwalior, Bhopal and Hyderabad meeting Indian nobility and recording their customs, art and architecture. Yet tone aside, the passage reveals the elephant’s judgement and volition. The mahout commanded; but where life was on the line, the elephant took decisions for all concerned.

Rousselet, like nearly every nineteenth-century European traveller, described his elephant as sagacious, a term which denotes mental acuity combined with good judgement. Harriet Ritvo writes that in the nineteenth-century sagacity was the standard British expression for animal intelligence (1987, 37). Sagacity, however, indicated a “diffuse kind of mental power: the ability to adapt to human surroundings and to please people” and a “circular calculation made the most sagacious animals the best servants” (ibid, 37). It signified a useful, desirable, yet subservient intellectual capacity. Sagacity, furthermore, differentiated animal from human cognition; ‘intelligence’ was typically restricted to people. European travellers’ almost involuntary use of the words sagacity, intelligence, dexterity, adept, sage and instinct, suggests their esteem for the elephant’s mind. Indeed, elephants sometimes earned the ultimate compliment: human equivalence. One naturalist noted its “almost human wisdom”, while a longtime hunter called it “the wonderfully intelligent and half-human elephant” (Jameson et al 1830, 423; Forsyth 1889, 299).

Elephants’ reasoned behaviour seemed to pressure their human colleagues to engage them in rational, human-like ways. Forsyth paused his hunting account to chronicle the escapes, thievery and general cunning of one elephant, Mr Sarju, whose mahouts would, rather than pursue or beat, verbally negotiate with him from a distance, in order to retrieve him quicker. While almost all riders recounted their elephants’ eerie command of language, some also noted that elephants would brood or revolt if verbal promises regarding food were broken (Roberts, 1835, 245; Orlich, 1845, 277; Caine, 1890, 284). Equally, wrote Emma Roberts, elephants rarely engaged in “wanton mischief; their sagacity enables them to estimate the damage they might commit” (Roberts, 1835, 249). British colonialists even evaluated elephant actions according to an ethical spectrum which extended between the animal and the human.

Company regiments, following Mughal tradition, named their elephants and even court-martialled one for disobedience (Sivadsundaram, 2005, 33; Adams, 1867, 314). When a baggage elephant killed his mahout, Governor-General Warren Hastings did not blame animal or instinct. Rather, he concluded that the mahout “had probably on some occasion maltreated him, for the animal did not attempt to injure any one else” (Hastings, 1858, 314-15). Hastings trusted, to a certain extent, the elephant's judgement, noting that “elephants will retain for a long time a keen remembrance of any peculiar harshness used towards them” (ibid, 315).

In his *Cognition in the Wild*, the anthropologist Christopher Hutchins argued that thought extends beyond the individual (1995). In quotidian circumstances – ‘in the wild’ – cognition is *interaction* between people, knowledge, norms and things. As vehicular characteristics, elephant intelligence and intention suggest that agency and volition were distributed in a literal sense: a mature, trained, mahout-controlled riding elephant acted *in conjunction with* and *autonomously from* its human ‘operators’. The mahout guided the elephant using speech and touch to direct its locomotion and manipulation. Behind in the howdah, the traveller determined the broader course of travel. Yet the traveller joined a bi-species chain of command: he or she directed mahout, who merged with and directed the elephant. The elephant also acted of its own accord – was trusted to do so – and then also disobeyed instructions in order to prevent harm. While mounted in the howdah, the traveller partially gave over their command to the mahout-guided elephant. This ‘distribution’ and chain of command suggests that the elephant-traveller relationship was a multispecies partnership.

In the literature review I suggested that the term passenger more sincerely expresses the multiple artefacts and agencies which enable a traveller to travel. The term passenger recalls Latour's fundamental questions about which and how many (other) agents are (also) present. The elephant-borne traveller comprised tradition, training, mahout and artefacts, as well as a cognitively complex and physically capable animal. While an elephant may not seem like a prosthesis or ocular instrument, once we add up all of its components, a logical next question becomes: how did the elephant shape the passenger's encounter with the natural and social environments they traversed?

Landscape from the howdah: elephant as mediator

There is a consensus – and thus focus – on the primacy of the 'gaze' in geographies and histories of nineteenth-century European colonialism in South Asia (Miller and Reill, 1996; Ryan, 1997; Ryan, 1998; Arnold, 2005; Driver and Martins, 2005). Explorers, naturalists and administrators evaluated the landscapes they saw according to aesthetic criteria (the picturesque and sublime), economic and moral frameworks (colonial trade and governance), and optical technologies (the Claude glass and camera). Phenomenologically inclined historical geographies have also sought to explore vision's inherently embodied nature. Such studies have augmented 'disembodied' notions of vision by contextualising the practical, material and embodied nature of travellers' observation (Wylie, 2002, Scott 2006, Yusoff 2007, Lorimer and Whatmore, 2009). Scholarly approaches to landscape observation, however, whether social-semiotic-text or body-dwelling-practice, tend to posit 'pure' relations between person and landscape (Michael, 2000, 112). The purity lies in de-emphasising the non-human entities which interfere with, aid and make possible cultural or corporeal relations with landscape.

Perhaps surprisingly, phenomenological contributions have downplayed the mediating role of non-humans. Tim Ingold, John Wylie and others have adapted the ontological challenges of Maurice Merleau-Ponty to emphasise the inextricably embodied nature of vision (Dubow, 2001; Foster, 1998; Ingold, 2000; Wylie, 2006, 2002). Curiously, these scholars understate or overlook Merleau-Ponty's attention to non-human mediators. Merleau-Ponty, for example, argued that we perceive the world as 'motor-space' through 'motor'

habits. That is, we integrate the myriad material devices of everyday life into our perception of a highly material environment. We 'transplant' ourselves into hats, cars, walking sticks and other mundane or complex apparatus and thus "dilate our being-in-the-world", "changing our existence by appropriating fresh instruments" (Quoted in Hickman, 1990, 44). Transplanting into and appropriating convey critical aspects of non-human apparatus: hybridity and mediation. To move through, observe or manipulate the surrounding environment through a device is to assimilate it into our perception.

Atop the howdah, travellers experienced the landscape through the 'kinetic envelope' of elephant height and mobility. They saw from – and therefore with or through – the elephant. In other words, the elephant's physical and mobile particularities mediated the traveller's gaze. Moreover, travellers also witnessed their and their companions' hired elephants in the foreground of such topography. Far from an inconsequential conduit for cultural interpretations or corporeal encounters, elephants mediated embodied encounter and vision, and appeared as natural and culture icons.

The howdah sat deceptively high above the ground. While many travellers had seen elephants, they grasped this "lofty perch" by mounting it for the first time (Swinburne, 1907, 107). In Benares, where the streets were too narrow for his carriage, the Scottish Reverend Norman Macleod took to an elephant. First, the mahout commanded the elephant to kneel down and a "ladder placed against his side led up to the seat on his summit" (Macleod, 1870, 16). Then he scrambled up the ladder, felt as if "on the ridge of a one-storied house" and "held on as if for life, while the mountain heaved, for as [the elephant] rose on his hind legs he sent us forward, and on his fore legs sent us backward" (ibid, 17; see also Browning, 1903, 103). Another Reverend, Ac-

land, found it “a fearful height” and, for the first few miles, “could not help thinking of the danger of a fall” (1847, 63).

If unnerving at first, howdah height combined with the elephant's deft feet to afford panoramic observation in crowds. Though feet play a largely unsung role in the perception of landscape (Ingold, 2004), an elephant's furnished or expanded observation. Throughout the nineteenth-century European travelers took to howdahs to tour forts, markets and festivals. Sanderson believed their skillful step came from habituation to young calves mingling about the adult herd (Sanderson, 1879, 62). The most intelligent horse might tread upon human toes or dash when frightened, but “even huge tusked” showed “such wonderful instinct in avoiding injuring [people] that I have never seen an accident occur through them” (ibid, 62). In relatively populous India, city markets and religious ceremonies surged with peasants, merchants and mendicants, bullocks, ponies, camels and elephants, as well as carts, crates and carriages. The howdah's raised outlook transformed the surrounding people, vehicles and structures from impediments to a panoply of sights. Godfrey Mundy served as an aide-de-camp in India from 1825-1826. During his military tour he witnessed the Hindu Ratha Jatra, or ‘Car Ceremony’, at Puri. He extolled his mobile prospect in the mass of worshipers:

Winning our way carefully through the assembled crowds, we took post in a convenient spot, our exalted situation enabling us to see over the heads of the pedestrian gazers. There is no conveyance through a mob like an elephant; for, although extremely and amiably careful of the lives and limbs of the pigmies surrounding him, his progress is sure and irresistible. (Mundy, 1832, 249-50)

The elephant's feet also expanded vantages beyond dry land. When the artist George White attended the Haridwar festival, where thousands ritually bath

in the Ganges, “battlements, terraces and platforms” lined the river, ... covered with dense throngs of pilgrims, spectators and priests” (White, 1838, 31). He and his companions rode their elephants into the river, “in order to view, without inconvenience from the crowd, the bathing of the numerous devotees” (ibid, 31; see also Rousselet 1882, 361; Gay 1877, 326). The elephant also raised travellers above fire and fumes. Fanny Parkes attended a princess's Hindu wedding where bamboo screens and arches enclosed the entryway, “all lighted up with thousands of small lamps”, 5,000 torch-bearers and “fireworks ... let off in profusion” (Parkes, 1850, 430). Fortunately, her elephant “was a very large one; we were a great height from the ground, and had a good view, being above the smoke of the blue lights” (ibid, 430).

Novel, sweeping and penetrating perspectives prompted corresponding interest. The howdah's vantage, like a walking belvedere, stimulated as much as furnished observation. Elephant-borne travellers could sometimes see where they should not. John Pester, while passing through a village, wrote that, “from our exalted situation (on our elephant) we had the facility of beholding many pretty damsels in their compounds who otherwise would not have been visible” (Pester, 1806, 114). Pester had illicitly glimpsed into a *zenana*, or female quarters.³² In the early nineteenth-century most Muslim and high caste Hindu wives wore veils and rode in covered palanquins in public, making Pester's a indiscrete sighting within the cultural landscape. His vision surpassed in a straightforward sense what Mary Louise Pratt has termed the ‘monarch of all I survey’ mode – the imperious and encompassing mode of masculinist colonial observation (Pratt, 1992, 200-204).

³² *Zenana* is a Hindi and Urdu word (from Persian) which literally means ‘of the women.’ In this context, it refers to the inner apartments of a Hindu or Muslim house reserved for the women of the household; the outer apartments for guests and men are called the *mardana*.

Pester peered from a literally elevated position, atop a symbol of Indian royalty, into private spheres of local Indian life.

Howdah views also stimulated late nineteenth-century European travellers. Frank Vincent, an American tourist, found it “quite a novel sensation to move along upon this species of air-line, mounted so high as to be able to gaze into the second-story windows of the houses” (Vincent, 1876, 178; see also Gay, 1877, 326). The artist Walter Crane toured the fort-city of Chitorgarh with his wife on elephant. “From our commanding eminence, the elephant’s back, we could take a comprehensive survey of the life of the city, and see the people at work at various trades” (Crane, 1907, 79). Finally, while late nineteenth-century guidebooks seldom mentioned riding elephants, they lauded the pleasure and utility of the howdah prospect (Caine, 1890; Cook, 1912; Murray, 1911, 1901, 1898). Murray’s 1879 *Handbook to the Madras Presidency* recommended touring Haiderabad by elephant, as the “person’s head when riding this elephant will be upwards of 15 ft. from the ground, so that he will be able to see over the crowd to long distances” (1879, 365). Many took this advice (Crane, 1907; Del Mar, 1905; Forrest, 1905; Scidmore, 1903; Swinburne, 1907).

A mobile promontory

Some terrain necessitated the elephant's physical stature and capabilities. Along an arcing band from Kashmir to Assam, the forested spurs of the outer Himalaya tumble down to meet north India. These crumpled ramparts funnel meltwater from perpetual snows to subtropical plains and, every summer, halt and soak up the Indian monsoon. The band of seasonal swamp

forests which skirt this arc of foothills is the called the Terai, from the Persian *tarāī* for 'moist' (Yule and Burnell, 1886, 750). Vine-draped Sal trees reach skyward, barbed thickets choke riverbanks and 'grass' grows up to 20 feet high, concealing elephants, tigers and other large mammals. For Europeans these 'jungles' meant two things: fever and sport. British travellers tended to traverse this notoriously malarial district as quickly as possible (Guneratne, 2002). Yet few places in India supplied the sportsman with such diverse and abundant game. The Terai, however, could only be hunted successfully – and securely – on elephant (MacKenzie, 1988).

As in cities and crowds, the howdah's height expanded a travellers' visible sphere. For much of the year an elephant was necessary to see at all. Where the Sal forests and thick underbrush thinned, meltwater-fed river plains grew ravenagrass 12-20 feet high (known as elephant grass because it concealed them). William Burrell and his hunting companions "waded through waving seas of white elephant grass, so tall that [they] could only distinguish the whereabouts of the other sportsmen by the tips of their hats, the elephants being entirely hidden" (Burrell and Cuthell, 1893, 107; see also Campbell, 1842, 260; Hooker, 1854, 210; Hutchisson, 1883, 262). Swaying through the vegetation, the howdah might resemble "a moving tower" (Campbell, 1842, 194; Rousselet, 1882, 173). One hunter descended his howdah to track a hog "but the cover was so strong that [he] could not keep sight a moment", and was forced remount it (1806, 106).

Safety is a prosaic and thus overlooked aspect of landscape observation. This should not, however, diminish its pivotal role. In addition to the chattah's shade, the howdah raised a rider above the tigers, leopards, rhinoceros, boars, snakes and other animals which inhabited the tall grass and thorny

underbrush. Seen or unseen, tigers stalked every travellers' recollections of the Terai. Across the nineteenth-century British travellers from rank and file soldiers on furlough to the visiting Prince of Wales came to bag one (e.g. Butler, 1823; Gay, 1877). But only on an elephant, wrote Heber could a European shoot "with perfect safety to himself" (Heber, 1829, 381). Even after shooting a tiger, some sportsmen felt more comfortable sketching the animal while their assistants confirmed and roped the kill (Hutchisson, 1883, 263). Thus the hunter's safety was predicated on his elephant and hired hands' risk. The best – 'staunchest' – hunting elephants did not flinch if a tiger charged, giving the hunter atop further fractions of seconds to aim and shoot (Forsyth, 1889, 318-20). If the shot missed, the tiger might slash hand-width strips from elephant's thick hide, or even "a great gout of flesh" from the mahout's arm (as he was typically second in the tiger's reach) (Graham, 1878, 272; see also Pester, 1806, 108; Wallace, 1822, 36; Forsyth, 1889, 318-20).

Not only did an elephant raise and safeguard the rider, it fused with their body, enabling them to track and approach animals. As a herbivore and prey species, elephants do not alarm other animals. Like a modern safari jeep, the elephant allows their rider to draw near wild animals, who would normally sense humans approaching and flee (Norton, 1996, 367). This effect allowed European hunters to sidle up to and bag birds, boars and deer with relative ease. In addition, the elephant's tread flushed out rabbits, peafowl and other small game. As far as sighting and stalking the tiger – a paragon of Indian nature and tropical jungle – the elephant did most of the work. It typically scented, heard and sighted the tiger, approached it and then indicated its presence or location. Heber recorded how his elephant proceeded "slowly but boldly" upon discerning the target, with trunk raised and ears expanded, its "sagacious little eyes bent intently forward" to gesture at the concealed

prey (1829, 391). To signal an unseen tiger, the elephant would pause with its body rigid or quivering, utter a “low tremulous sound”, tap the ground with foot or trunk, or even even express a “symptom of rage” by trumpeting (Pester, 1806, 93; Mundy, 1832, 3; Forsyth, 1889, 318). The hunter and naturalist James Forsyth recorded that a particularly courageous shikari elephant, Mr. Sarju, could stalk in silence and until it spotted the tiger, when it would literally point with its trunk (Forsyth, 1889, 300; see also Rousselet, 1882, 173).

Promontory descriptions figure heavily in both nineteenth-century travellers' accounts and in their historical analysis (Pratt, 1992). Often this landscape gaze and trope connoted height and command, thus supposedly objective, wide-ranging and authoritative vision (Wylie, 2007, 127). Vehicles and animals, however, rarely factor as a physical prospect. The howdah functioned as a walking promontory, crucial to the hunter and excellent for gazing at landscapes. While most 'sportsmen' rode their elephants through 'jungle' for the practical, immersive and dramatic purposes of the chase, this did not stop them from experiencing the landscape as a distanced aesthetic object. Florio Hutchisson, a Company magistrate in Bengal, travelled north to shoot and sketch in November 1837. While riding his elephant through the Raj Mahal hills, he recounted a set-piece of nineteenth-century Indian travel narratives:

Where the village opened to the landscape a beautiful view was obtained. It was a sea of grass jungle extending to the foot of the hills, which appeared about a mile off. The hills were beautifully lit up by the morning sun, and the sameness of the immense expanse of grass was diversified by small bushes that marked the different lines of small nullahs which intersected the immense plain. (1883, 262)

Though not gazing out from a summit or cliff, Hutchisson's description contains classic ingredients of the promontory description. He rhetorically transforms natural surroundings into an exotic picture for European aesthetic appreciation, predicated on a raised, encompassing viewpoint. He applies the language of the picturesque – an aesthetic framework popularised in Europe – to convey novel topography in recognisable, accessible code, thus realising what Ryan has called “the portability of European taste” (1997, 60; see also Ryan, 1998). He underscores exoticism with two eye-catching Indian terms, *jungle* and *nullah*, informing the reader that this is far-flung, ‘other’ nature – ‘forest’ or ‘river’ might have deflated curiosity. He arranges the view as a series of elevations, plains and features, an order which composes the scene and eases visualisation: the foreground grass expands to the hills, which the sun illuminates as a background, while shrubs and streams scatter visual attributes throughout. In sum, this portion of Indian scrub forest is “summoned to presence, made to submit itself as a series of ‘points’ to the observing gaze” (Gregory, 2001, 95).

The entire sequential sweep is predicated on Hutchisson's physical and discursive position: he anchored himself at the centre of the prospect and gazed out, over and down. In contrast, though, to Richard Burton, Henry Stanley and other explorers of empire, Hutchisson's position was not a precipice or promontory but the *howdah* – his elephant's back as it strode across the hills of Bengal.

Vision requires a heterogeneous configuration of conditions. Mounted on a *howdah*, travellers witnessed the Terai from 12-15 feet above the ground, raised above physical and animate hazards, striding along at walking pace or stationary. While their ‘ways of seeing’ shaped riders’ interpretations of the

elephant grass, Sal trees and so on, mundane material conditions formed the base upon which these could occur. The body had to be in moment-to-moment contact with Indian nature in such a way that aesthetic intake was possible. Landscape had to 'cooperate': it could not be so difficult, violent or painful so as to disable contemplation – so as to, in Elaine Scarry's words, 'unmake the world' (1985). In the Terai and other Indian forests, it was the trained, guided, howdah-equipped elephant that made 18 foot grass, thorny scrub, rivers and tigers cooperate. Before thought or description came a base level prevention of danger, discomfort and distraction. Only then, could the grander, culturally mediated connections between European traveller and Indian landscape could be accomplished.

Such base level conditions also applied to more practical, embodied and immersive landscape relations, such as those of 'sport'. Some cultural geographers have augmented the 'disembodied' notions of the gaze by attending to the practical, material and embodied nature of travellers' engagement with landscape. The historian Elizabeth Collingham, in a similar vein, has examined 'the physical experience of the Raj' through the embodied practices of British civil servants in India (2001). She shows how British bodies were bounded by social, sexual, medical and culinary regulations, and performed in a progressively 'closed' mode of engagement with Indian natural and cultural settings (see also Duncan, 2007). The British used clothing alongside behaviour to construct what Collingham terms an 'affective wall' between their vulnerable bodies and the infringing Indian cultural and natural environment (2001; see also Kennedy, 1990, 1996; Cohn, 2001). On one hand, the elephant helped 'close off' the Indian environment. European travellers in India relied on it to survive in and enjoy the Indian environment, just as they relied on their sola topis, spinal pads, flannel binders, mosquito

nets, quinine, kuskus tatties, punkahs and palanquins (De Caro and Jordan, 1984; Harrison, 1999; Headrick, 1981; Kennedy, 1990; Renbourn, 1957). Like material, medicinal and technological apparatus, they recruited the elephant as a means by which to mitigate Indian nature and climate. Atop an elephant, Europeans could enter, traverse and hunt in the Terai, keeping its discomforts and dangers at bay. On the other hand, the elephant did not only act as a wall but as a door: only *by way of* the elephant could travellers encounter and gaze at landscapes of the Terai. The elephant was a preserving vessel by which travellers accessed and experienced landscape.

Transspecies colonial travel: the elephant as instrument and partner

Our elephant was an excellent one, when he did not take obstinate fits, and so docile as to pick up pieces of stone when desired, and with a jerk of the trunk throw them over his head for the rider to catch, thus saving the trouble of dismounting to geologise! (Hooker, 1854, 10)

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That morning, January 31 1848, the botanist Joseph Hooker toured the western edge of the Damooda valley coal seam, two days travel north of Calcutta. Until early April Hooker used elephants as part of his camp retinue, mainly for cargo but also for scientific observation. The words excellent and docile reveal his esteem for an able and cooperative animal. The cognitive and ballistic dexterity he described should amaze us: at a verbal command, the elephant identified and dislodged a specific stone and lobbed it backwards into the hands of its *mahout* (driver). On elephant, Hooker collected specimens from the riverbed and lower canopy of thick, tiger-inhabited riparian forests. For him, the elephant was a vehicle and tool. Yet the words obstinate and fits – in conjunction with intelligence and ability – suggest that the elephant contributed its own agency and individuality to Hooker's botanical journey. For peripatetic natural fieldwork in the forests of India, the elephant was also a partner.

The historian Richard Sorrenson argues that the ship functioned as a scientific instrument in the eighteenth century, influencing the geographic knowledge navigators and naturalists gathered en route. The ship which conduc-

ted a 'scientific discovery' "was never merely a vehicle ... anymore than a telescope was merely a vehicle that transported images of heavenly new worlds to an observer" (Sorrenson, 1996, 222). Rather, the ship expanded the sciences of navigation and natural history as the telescope expanded and framed understanding of the cosmos. By calling attention to the enabling, constraining and mediating roles of the ship, Sorrenson extends the understanding of instruments to include mundane yet vital devices. Sorrenson proceeds, however, to compare James Cook's *Endeavour* to the donkey used by Alexander von Humboldt in South America, and asserts that this donkey cannot be considered a scientific instrument for three reasons: it contributed no authority, by way of the commissioners, route and equipment, to the data Humboldt collected; it "left no traces on the maps" Humboldt later drew up; and, in contradistinction to a large vessel, "the Donkey did not offer Humboldt a superior, self-contained, and protected view of the landscapes and civilizations he viewed" (ibid, 222).

The elephant's species-specific properties challenge each of Sorrenson's anthropocentric and technocentric claims. First, while the elephant held little clout in nineteenth-century European scientific circles, it demonstrated status and authority in the eyes of local Indians. Travelling naturalists attended durbars, held audiences with local rajas and traversed independently governed districts. Second, Sorrenson's notion of 'traces' necessitates an expansion of what we consider as contributing to the topographical and botanical knowledge gathered by naturalists. From published and unpublished accounts, we know that elephants enabled naturalists to traverse challenging terrain, gather specimens from rivers and canopy, and naturalise in the habitats of predatory mammals (e.g. Hooker, 1854; Huxley, 1918). Moreover, Sorrenson fails to acknowledge that colonial science operated *by erasing traces* of

local assistance from maps and other record. Finally, while a donkey did not provide a “superior, self-contained and protected” viewpoint, an elephant did. As the previous section discussed, the howdah made a secure and advantageous outlook. Clear views over surrounding vegetation and the ability to discern and collect specimens from the lower canopy en route were even more advantageous to a travelling scientist. Hooker's hired elephants enabled him to access, inhabit, traverse and conduct research in challenging, seasonally perilous districts.

If Sorrenson does not consider Humboldt's donkey an instrument it is little surprise that he does not suggest it was a research partner. An elephant, though, possesses too complex a cognitive and socio-psychological profile to be merely a tool. On one hand, an elephant possesses sentient individuality and subjective agency. Religious traditions, colonial records and oral histories record that elephants carried kings and governors (Sukumar, 2003), babysat infants (Russell, 1852, 209-10; Shipp, 1843, 219-21; Illustrated London News, Oct 31 1863, 448), exacted tribute (Roberts, 1835, 249), escaped captivity and many other deeds. Even British colonialists treated them as more-than-animal individuals (e.g. Adams, 1867, 313-14). On the other hand, a trained elephant entails a union of animal and human. In south Asian cultures elephant have for millennia spanned boundaries between animality, personhood and divinity (Locke, 2013, 87). Such were not only 'native' beliefs. The nineteenth-century naturalist and hunting expert James Forsyth wrote that “the wonderfully intelligent and half-human elephant” bonded perceptually and emotionally with its rider so that it became “almost a second self” (Forsyth, 1889, 299-300).

For two travelling naturalists in mid-nineteenth-century India, the botanist Joseph Hooker and the geologist Valentine Ball, the elephant served as both an instrument and a partner. Against Sorrenson, I use the notions of physical and social access to show how the elephant enabled Hooker and Ball's peripatetic fieldwork leaving traces on their publications and imbuing their person with authority. I then show how elephants contributed their individuality and agency, permitting and hindering camp travel. I finish by discussing the role of non-humans in scientific travel and species-specificity in animal geographies and histories.

Elephants as instruments: physical and social access

Physical and social access are prosaic necessities of naturalist observation. Historical geographies of travel, exploration and science has tended to overlook these base level requirements of observation and record in favour of cultures of record, authority and trust (Driver, 2001, 1998; Keighren and Withers, 2011; Ogborn and Withers, 2004; Withers, 2004). Yet the sheer ability to enter and traverse terrain underlay all subsequent, 'higher' forms of record, inscription and circulation of knowledge. In the mid-nineteenth-century India, an area larger than mainland Europe, few engineered roads, much forest and seasonal watercourses lay between the naturalist and their next site. Seasonal conditions added obstacles. From June to September, rivers swelled, soil sagged, jheels pooled, bugs bred and vegetation erupted, choking forested and riverine pathways. From November to May, the dry season sun shrivelled rivers and baked plains' pastureland brick-hard. With the advent of the Indian railways c1867 locomotive transport began stitching cities and dis-

tricts together.³³ But railroads only serviced large, populous cities. Elephants went where boat, carriage and feet could not reach. Travellers used them for cargo, comfort and physical safety, but also for social relations.

First came physical access. For peripatetic men of science, laden with instruments and specimens and want to wander through pathless tracts, physical access was crucial. John Law has described how fifteenth-century Portuguese explorer-merchants in India rendered themselves mobile, durable and able to return – and thus able to effect successful trans-oceanic maritime trade – by mobilising the specific properties of the Portuguese *carrack* (*carriera*) (Law, 1986). In order to enter, traverse and survey backwoods India, naturalists had to become similarly mobile, durable and able to return. At this time, the privations of travel – contaminated water, spoiled food, mosquitoes and heat – killed more Company soldiers than combat (Curtin, 1989; see also Harrison, 1999). Yet Ball and Hooker, over a dozen seasons and over several months respectively, managed not to sustain a fatal illness or injury, journeyed across areas as big as western Europe and collected enough observations and samples to fuel several publications. Access, furthermore, meant passing through a patchwork of policed and unpoliced Company territories as well as sovereign native states. Colonial authority and individual hubris empowered both travellers. Yet the elephant, as I will show, equipped each with the requisite prestige to roam within and beyond Company jurisdiction.

Irishman Valentine Ball served the Geological Survey of India from 1864 to 1878. He was also a keen ornithologist who catalogued bird species and wrote for ornithological journals in his spare time. By this era, railroads

³³ In 1867 the Bombay-Calcutta link began operation.

linked Calcutta to cities north and west along the Ganges. Few travellers opted to employ relatively expensive and onerous elephants. But where Ball went, elephants were indispensable. Each year for four to ten months Ball left his Calcutta office and trekked several hundred kilometres across Bengal, Assam, Jarkhand and Orissa. He typically travelled with two elephants, at most four. They transported instruments, provisions, tents and specimens – and occasionally his person. He had much to carry. His camp consisted of a “double-roofed hill-tent ... with two lateral verandas”, a bath tent, cooking utensils, a frame bed, a working table and an eating table, a book-case, two chairs, a gun rack, clothes and “sundry portmanteaus and boxes” (Ball, 1880, 8). He travelled with at least eight servants: a native doctor, a *jemadar* (head servant), and *chuprasies* (caste-specific servants) to pitch tents, run messages, cook meals and keep watch, and a mahout and one to two grooms for each elephant (Figure 5).

Ball's primary task was to survey and assess coal, iron and copper deposits. He spent many days searching out and inspecting sediment outcrops, often in riverine tracts where erosion exposed strata and bedrock. Rivers were also home to the bird species Ball spotted and shot. An elephant's import emerged when compared to other available transport. As Williamson wrote, the elephant's power, broad feet and intelligence “qualify him, almost exclusively” to transport tents and heavy baggage where the soil was wet (1810, 430-31). During his first season examining tributary beds in southwest Bengal, Ball's equipage comprised 21 people and gear. For three months they lacked an elephant: “four bullock carts ... were my only means of carriage; how unsuited they were to the country I had to go through will presently appear” (Ball, 1880, 10). Thick vegetation, muddy trails, swamps and rivers bogged their progress. When heavy rains rising water shrank their river-

braid campsite, Ball and team loaded the bullocks at speed – though losing provisions – and narrowly escaped “never leaving the place” (ibid, 10). Several weeks later he acquired an elephant; his narrative does not mention watercourse difficulties again. Instead, Ball took to the howdah to observe rock formations and collect samples in swollen streams (ibid, 247). More recreationally, an “abundant variety of ducks and waders” gathered in jheels he paused geologising to observe and shoot. “Where I could not get a boat”, wrote Ball, “I employed an elephant to retrieve the fallen ducks” (ibid, 247).



Figure 5: “The camp at 6 a.m. and 6 p.m.” (Ball, 1880, 504).

The elephants’ sleep schedule and sensory perception provided an incidental advantage: camp alarm system – a practical service in unpoliced territory with provisions and instruments. Elephants sleep two to three hours per day (around midnight), allowing Ball to travel at almost any time of day and providing him with an unofficial sentinel. While wearied porters, servants and guides slept, they remained alert (Butler, 1823; Forsyth, 1889; Sanderson, 1879). More, their large, sensitive and directional ears and trunk enable ele-

phants to hear and smell more acutely and beyond the range of humans (Poole and Granli, 2008). One night in Orissa, thieves crept into one of the tents. Ball was “awakened by a great uproar, the elephants trumpeting in concert with the shouts of the men” (ibid, 654). The only lost item was the doctor's hookah.

The botanist Joseph Hooker toured eastern India and the Sikkim Himalaya from 1848-50, prior to the Indian railways. Before his mountain excursions, from January to April of 1848, Hooker travelled west as far as Benares along the Grand Trunk Road, back east along the Ganges and then north into Sikkim. Hooker's two hired elephants mainly carried his tents, instruments and specimen cases, and he occasionally worked from the *howdah* (seat) en route or on excursions from camp.

Like Ball, Hooker used elephants to traverse densely vegetated and riparian tracts, such as in south Bengal and Jarkhand and the sub-Himalayan swamp forests of eastern Nepal and northern Bengal. The elephants' elevated seat permitted Hooker to survey his surroundings while protecting him from threat. In the Terai, he rode through the howdah-high 'elephant grass', observing while on the move and staying safely above the sandy banks, which were “everywhere covered with the marks of tigers' feet” (Hooker, 1854, 400). “The only safe way of botanizing”, Hooker continued, “is by pushing through the jungle on elephants” – though this made for “an uncomfortable method, from the quantity of ants and insects which drop from the foliage above, and from the risk of disturbing pendulous bees' and ants' nests” (ibid, 400).

The elephant's restricted perch did not separate Hooker from soil or flora. Rather, its trunk enabled Hooker to continue collecting while riding. This famous proboscis is a 1.5 to 2 metre long and composed of over 60,000 longitudinal and radiating muscles. Elephants use it for breathing, drinking, smelling, eating, touching, communicating, grasping and manipulating (Shoshani and Eisenberg, 1982). It is strong enough to haul timber or artillery yet dextrous enough to pick coins off a dusty road – as mahouts sometimes showed their riders in hope of baksheesh (Crane, 1907, 302). For a botanist, the elephant's trunk was winch, net and hook. During his explorations up the Damooda and Soane valleys his elephant handed or hurled up stones and on forested hillsides it plucked epiphytes from the branches above (ibid, 10; Huxley, 1918, 240).

Elephants also augmented the traveller's physical endurance. When Ball suffered from a sprained ankle he continued to work from the howdah, directing his attendants to collect specimens (Ball, 1880, 95). One night they pitched camp in a mango grove crawling with snakes and scorpions, and Ball awoke the following morning in a “semi-delirious condition” (ibid, 129). He blamed it on the “tainted atmosphere”. While Ball mistook miasmas, he was indeed poisoned. “Being too weak to ride, and with no other means of carriage”, he had himself hoisted “on top of one of the elephant’s loads”, and carried on surveying traces of copper ore for three days before turning north toward Barakar, the nearest railway station and link to Calcutta (ibid, 129).

The riding elephant provided another mobile advantage to observation: trail-breaking. In the Rajmahal and foothill forests, the tangled vines and underbrush made it difficult to leave local footpaths, “except for a yard or two up a rocky ravine” (ibid, 107). Here, the “elephant's path [was] an excellent spe-

cimen of engineering", wrote Hooker, "for it winds judiciously" and followed the flattest possible gradients (*ibid*, 108). These circuitous, trampled alleyways permitted a second inspection on foot and combined with local footpaths (which ran perpendicular to hill-slope) to "double the available means for botanising" (*ibid*, 108). Where necessary, his elephants also stripped "away the branches of the trees with their trunks", clearing his desired path (Huxley, 1918, 240). On this day, Hooker noted a further advantage in his diary: "I got many plants on the route, the elephant getting several inaccessible species for me" (*ibid*, 240).

This posthumously published, passing line and Ball's crippled surveying suggest a critical if humdrum detail: the elephant augmented extended the naturalist's bodily and perceptual capacities. Ball feverish delirium included intense fatigue and "a feeling of double identity, which [was] very puzzling and annoying" (1880, 129). He recorded hallucinating in his tent for hours, confused about which "part of [his] entity" owned the rifles in the corner. Yet for three further mornings he continued geologising from the canvas tent sacks on his elephant's back. Hooker, from his howdah vantage or stalking along flattened undergrowth, spotted and collected otherwise unseen or unreachable plant species from the lower canopy – and did so while covering ground between campsites (Hooker, 1854, 107-08; Hooker et al., 1918, 240).

The elephant's physical and motile augmentations thus challenge the second and third of Richard Sorrenson's denunciations – that the animal left no remnants on the scientific knowledge collected and, unlike a ship, did not offer a raised, protected vantage (1996, 222). Foremost, Sorrenson's notion of 'traces' necessitates an expansion of what we consider as contributing to the topographical and botanical knowledge gathered by naturalists, and attention to

the retrospective effacement of local animal and human agencies. Neither Hooker's 1854 *Himalayan Journals* or 1855 *Flora Indica* nor Ball's 1880 *Jungle Life in India* or 1885 *The Diamonds, Coal and Gold of India* specified which specimens were observed from a howdah. Yet from published and unpublished accounts, we know that elephants enabled each to traverse terrain, gather specimens from riverbed and canopy and work in the habitat of predatory mammals (e.g. Hooker, 1854; Huxley, 1918; Ball 1880). Both Ball and Hooker's roaming research resulted in maps and specimen collections. Acknowledged or not, these graphic and material pools of knowledge contain the contributions of elephants as vehicles of entry and traverse, and as instruments of observation and collection.

Sorrenson's trace remark raises a larger issue germane to colonial and South Asian history: the effacement of local knowledge and assistance. To downplay or erase the knowledge, capacity and influence of 'native' help was de rigueur for colonial travel narratives (Pratt, 1992; Browne, 1996; for India see Guha 1983, 18-76). To efface the work of animals raised fewer eyebrows. While neither naturalist acknowledged their elephant vehicles as influencing their scientific endeavours, rarely did they acknowledge the enabling support of their guides, translators, porters, cooks and tent-pitchers. Scientific travellers' faced disciplinary pressure to present themselves as independent, trustworthy and authoritative, and discursive pressure to detail timely, 'on the spot' records by way of reliable instruments and trained eyes (Driver, 1992; Jardine et al., 1996). So it is not surprising that elephants left *no discernible traces* on the maps Ball and Hooker later drew up. But, rather than their lack of agency or utility, it was rhetorical artifice which effaced elephants' contribution to scientific expeditions.

While Humboldt's donkey did not provide a "superior, self-contained and protected" viewpoint, Ball and Hooker's elephants did, by virtue of their size, strength, training, mahouts, apparatus and social significance. As Hooker wrote, when in riverine tiger habitat, "the only safe way of botanizing [was] by pushing through the jungle on elephants" (Hooker, 1854, 400). Their size, strength, cognition and cooperation made elephants a species of forest frigate which far exceeded the transport and observation capabilities of the largest or smartest ass. Ball used them for twelve consecutive seasons trekking through hundreds of kilometres of forest, swamp and river. At a time when tainted water, rotten food, mosquitoes and heat made up the principle threats to health, hired elephants rendered Ball and Hooker mobile and durable, able to access, inhabit, observe and traverse challenging, seasonally perilous districts. Though literatures of scientific travel tend to overlook safety, this should not diminish, however, their importance to observation and collection, nor the utility of clear views over 15 foot high grass or the capacity to perceive and collect plants from the lower canopy en route.

Instruments such as the telescope enabled astronomers to perceive farther than the unaided eye, revealing 'new worlds'. Questions about the earth required actual voyages that left laboratories, libraries and scientific societies back at home in the metropolitan centres of empire. Thus the ship was an instrument which revealed antipodal phenomena to skilled observers in the field (Sorrenson, 1996). Like ships, elephants were not meant to be roving laboratories; they were primarily tools of transport. While the forests of India differed markedly from the South Seas, in order to observe and collect in either environment, the scientist had to become mobile, durable and able to return. The Asian elephant, an animal physiologically evolved to "long-distance living" and able to carry 1000 pounds of rider and baggage through

challenging terrain, was an essential instrument to itinerant fieldwork (Poole and Granli, 2008, 5). Colonial officers and hunters agreed (Forsyth, 1889, 288-300; Sanderson, 1879, 52-88; Williamson, 1810, 430-65). Like a telescope enabled astronomers to observe beyond their natural capacities, so the elephant enabled Ball and Hooker to traverse and observe beyond theirs.

Travellers used elephants for cargo, comfort and physical safety, but also for social relations. Status and appearance were important. Before 1857, British travellers – mainly soldiers, officers and governors – represented the Company and its expanding clout. Moreover, the Company still derived its authority nominally from the Mughal emperor in Delhi, and practically from their emulation of and relations with regional Indian nobility. British travellers tended to move with appropriate pomp and dignity so as to avoid confrontation, on one hand, and facilitate territorial access, on the other. In short, naturalist travel required not only physical but social access. In order to traverse local districts, Ball and Hooker needed regional authorities (and peasants) to tolerate or welcome their presence, however transient. Sorrenson's first denunciation, that animal transport furnished no authority seems at first to hold; the elephant held little clout in nineteenth-century geological and botanical circles. But it wanes when we conceive of authority beyond the confines of scientific societies in Britain, for the elephant demonstrated status and credibility in the eyes of local Indians.

Over millennia, Asian elephants have been associated with political power and aristocratic prestige. In the early nineteenth-century every Indian noble, from a humble local raja to a high Mughal prince, was obliged to possess a certain number (Deloche, 1993, 235; Sanderson, 1879, 83). The Emperors Jahangir and Aurangzeb kept several thousand for war, hunting, elephant

combat, transport and harem conveyance (Deloche, 1993, 235). By the mid nineteenth-century Company administrators and merchants had for almost two centuries emulated the spectacle and ceremony of their Mughal rivals and then predecessors. In the context of mobility, this meant that Company officials were often preceded by mace and standard bearers, drum beaters or pipe players, and a small *sepoy* regiment (Collingham, 2001, 43-57). Williamson advised the traveller to hire a uniformed retinue not only for protection but to inspire the attention and cooperation of locals in matters of lodging and food procurement (1810, 395-97). While lances, pipes and attendants garnered esteem, elephants commanded respect. A late eighteenth-century traveller wrote that, "nothing indeed is more suited to lend the impression of grandeur and pomp and to inspire veneration than to see a great personage majestically seated upon a throne at such height on an enormous animal superbly caparisoned" (Grose, 1772, 248).

Neither Ball nor Hooker moved with such splendour. But both carried ornamental coverings, allowing them to transform their workaday elephants into regal carriage – the nineteenth-century Indian equivalent of a Mercedes motorcade. Along the way each naturalist attended *durbars*, held audiences with local rajas and entered districts with and without official permission. Hooker had come to India by way of government grants, his father's connections and Company permission, and assistance. Hubris and chauvinism fuelled at least part of an imperial, 'right to roam' conceit, that eventually saw him jailed in Sikkim for trespassing on the Tibetan border (Hooker, 1854, 220-31). Ball was an 'old India hand', spoke Hindustani and Bengali and mostly sympathised with 'indigenous' customs. He nonetheless operated according to British Government rather than local regulations, going where the Geological Survey of India required. Yet, on a day-to-day, district to district basis, between

the reach of Company jurisdiction or the English language, part of Hooker and Ball's credibility would have emanated not from foreign credentials but from their cavalcade – and elephants constituted a mainstay of this socio-symbolic assemblage.

Elephants as partners: individuality and agency

While elephants assisted scientific travel in forest India, they entailed a suite of challenges and adaptations. One dictionary defines a partner as “a person who takes part in an undertaking with another or others” (OED). While elephants are not normally considered persons, they took part in Ball and Hooker's fieldwork. From the start, they forced each travelling naturalist to adapt their itinerary to elephant physiology and psychology. Elephants piled high with supplies and specimens required Ball to adapt route to the local topography, redirecting at times, and even to adapt local topography to loaded elephant. Two times in Jarkhand province, where “the jungle was so thick along the tracks which my camp had to pass”, Ball hired local villagers to “cut down the trees, which would have obstructed the loaded elephants” (ibid, 480).

Such adaptation also worked in reverse: seasonal climate forced Ball to adjust elephant sleep schedule to itinerary. During a particularly hot spell one June, Ball completed a 225 kilometre march through Jharkand provence, “in ten days, or, to be more correct, in ten nights, for owing to the heat it was necessary to save the men and cattle as much as possible” (ibid, 336). They started about midnight and reached the next camp-ground by seven or eight in the morning. The mahouts would put the elephants “to bed, at eight o'clock, in

order that they might obtain forty winks before being loaded for the march at twelve" (ibid, 337).

While elephants enabled progress, they also, at times, inhibited it. Dependence on elephants for carriage meant that their personalities, pace and needs affected how travel and fieldwork proceeded. Absent elephants – feeding, fetching supplies or fleeing – delayed departures. Elephants stuck in ditches or swamps slowed stages (ibid, 577, 95). Rough, wet or hilly terrain, as well as weighty loads, tired elephants, requiring additional recuperation and reduced speed (ibid, 597). As much as possible, Ball harmonised their' capabilities with the planned march. He and his mahouts adjusted the loads according to stage length and terrain, available nutrition and rest periods. Traveling through the forests of central India, Ball had to relinquish eight hired pack-bullocks and so forced his elephant to bear additional baggage. This redistribution of cargo had consequences, however. "It distressed me much", wrote Ball,

to find that long-continued carrying of heavy loads had very seriously affected the pace at which the elephants could go. From about three miles an hour on a good road, it had fallen to two, and was now barely one and a-half. This was often the cause of serious discomfort on these long marches, as it involved long delays (1880, 481)

Considering adult Asian elephants spend 12 of every 24 hours walking on home ranges of up to 250 square kilometres, Ball had marched his elephants towards breakdown (e.g. Poole and Granli, 2008, 3-5). They were likely suffering some combination of fatigue, dehydration and trauma (Bradshaw et al., 2005, 807), as well as likely footpad or back abrasion (Sanderson, 1879; Williamson, 1810). While elephants helped Ball to overcome the challenges of

distance, terrain and climate, this was because he offloaded the burdens of mobility onto them.

Elephant individuality is a common themes across scholarly and practical experience of elephants (Byrne et al., 2009; Hart and Locke, 2007; Lair, 1997; Locke, 2011; Poole and Granli, 2008; Nance, 2013). Contemporary ethnographic research has traced the unique personality, inclinations and psychology which result in each animal from their particular human-animal relationships and upbringing (Hart and Locke, 2007; Locke, 2011). The hands-on, commercial experience of nineteenth-century circuses, zoos and colonial *keddahs* have likewise left a rich if implicit register of elephant identities and actions (Forsyth, 1889; Sanderson, 1879; Sivasundaram, 2005; Sukumar, 2003; Nance, 2013). Nineteenth-century accounts tell a similar story. Colonial sportsmen and elephant specialists documented names and temperaments (Baker, 1854; Forsyth, 1889; Sanderson, 1879). That one military traveller described the “insubordination” of an elephant suggests that the Company treated their animal recruits at least partially as sentient and accountable individuals (e.g. Adams, 1867, 313-14).

Religious, royal and mahoutship traditions of the subcontinent, as well as practicalities of training, called for elephants to have names (Sukumar, 2003). Company regiments adopted the practice of naming elephants from the Mughals (Sivasundaram, 2005). But most European travellers failed to publish their elephant's names. Hooker recorded only one, 'Elephas', in his diary. The Latinate moniker suggests that he did not know or care to use the elephant's given name. Not Ball. Over annual four to ten month tours he got to know individuals by name and personality. Mowlah, Bhari, Anarkelli and Peari served multiple seasons. He described not only their age, size, stamina

and strength, but also their emotions, dispositions and behaviour. In the pages of *Jungle Life in India*, Ball's hired elephants had as complex and idiosyncratic characters as his hired jemadar, doctor and mahouts, and received more mention than any *chauprassie* (menial servant). Beginning his sixth year, he purchased Anarkalli and Peari from the East India Railway Company. The former was "a sedate old maid, and the latter a skittish, well-shaped, good-tempered young thing of about thirty-five years of age" (Ball, 1880, 275). Peari was his favourite. Over five seasons, Ball reminisced, "both these elephants have travelled some thousands of miles with me, and, except that Peari occasionally suffers from fits, they have proved an excellent investment, and have done their work well" (ibid, 275).

While familiar and useful members of the camp team, these elephants caused mischief which stymied fieldwork (see also Forsyth, 1889, 319-20; Hastings, 1858, 314-15; Hooker, 1854, 46). Mowlah and Bhari were wont to escape when grazing unwatched. Following one such getaway, Bhari "broke her chains during the night and made off, and was not captured until mid-day, when it was too late to march" (ibid, 577). This old female, "was incorrigible; she would frequently spend the greater part of the night trying to break her chain" and was known to "show an extraordinary degree of cunning, and would hide herself behind a tree or bush, and remain quite still when she saw [the mahout] coming to look for her" (ibid, 577-78). Pachyderm peek-a-boo may seem farcical. But, as Ball wrote,

This straying of the elephants in heavy jungle, although generally quickly followed by recapture, always caused me a good deal of anxiety. I knew that if not captured the same day, each day would increase the difficulty by a rapidly augmenting ratio, owing to the larger radius of country that would have to be searched, and the

greater wildness and intractability of the elephants as they had further opportunities of enjoying freedom from all restraint (1880, 577)

Here Ball captures a perennial concern of mahouts: elephants, while known, controlled and even loved, nonetheless remain in human service at least partially against their will (e.g. Hart, 2005; Locke, 2011). That elephants are subject to forceful capture and years of discipline *as well as* care and intimacy, illustrates the contradictory relationships elephants experience with humans (Locke, 2013, 90). Thus even a short escape could spell catastrophe for a travelling naturalist. Sanderson wrote that a taste of liberty could retract the tolerance and loyalty built up over years (1879, 62). Ball's practices of overloading, shackling and recapturing his animal 'employees' indicate that traveller-elephant relations were less than convivial on the job. Mowlah rebelled from day one. Ball had acquired him from the Superintendent of the Indian Survey during his first year (1864). Alongside Anarkalli and Peari, Mowlah provided years of service. "But the acquisition was not an unmixed good, for Mowlah, ... was a very unmanageable animal" (ibid, 28). His first assigned mahout immediately requested Mowlah's dismissal, "on the ground that the elephant would not obey him, and that he was afraid of it". Ball refused; the mahout quit. Ball then "handed over the beast to the assistant or mate, who, at the prospect of becoming Mahout, rose to the occasion and undertook the sole charge till a second man could be obtained". "Almost immediately", however, "there was a severe trial of his skill and pluck" (ibid, 29). Mowlah trunk-swatted his new master and fled. The mahout and chuprassies subdued him several hours later at spear-point, "cowed [him] with a severe thrashing", chained him to a tree and "gave [him] further chastisement, after which [Mowlah] acknowledged his mastership". Twelve years later Ball reluctantly rehired Mowlah for a season in Orissa. This time Mowlah went

musth – an annual hormonal surge when male elephants behave erratically and aggressively. He “began to give trouble, and to show a particular dislike for the mate mahout, whom he several times knocked over” (ibid, 584). The next morning Mowlah “flung” the assistant and broke loose (ibid, 600-03). Mahouts and servants again arrested him by martial tactics. The “moral of it all”, Ball wrote, “is beware how you take charge of strange elephants” (ibid, 620).

William Cronon has written that non-human agents are:

first and foremost themselves, despite the many meanings we discover in them. We may move them around and impose our designs upon them. We may do our best to make them bend to our wills. But in the end they remain inscrutable, artifacts of a world we did not make whose meaning for themselves we can never finally know. (1996, 55)

Ball and his mahouts controlled the baggage elephants. Yet Anarkelli, Mowlah, Peari and Bhari also acted. Like other partners in a travelling retinue, they possessed their own upbringing, education, personality and temperament. Rather than animate outsiders to human affairs, or familiar animals, it seems right to understand these elephants as “strange persons” – or “other-than-human-persons” (Bird-David and Naveh, 2008, 60; Whatmore and Thorne, 2000). That is, we should understand them as historical actors possessing consciousness, influence and individuality (Nance, 2013). While it remains impossible to know what Mowlah and others desired – except occasional or permanent freedom – describing their influences on Ball’s travelling fieldwork can be considered a first step against (further) marginilising of animal ‘others’ in the theatre of history (Cronon, 1996; Philo and Wilbert, 2000; Wolch and Emel, 1998; Shepard, 1995; Soule and Lease, 1995). It also, like

poststructural and feminist refusals of “man the subject”, reclaims animals from the intellectual margins “by destabilizing that familiar clutch of entrenched stereotypes which works to maintain the illusion of human identity, centrality and superiority” (Baker 1993, 26). Ball was in charge – and his mahouts tended the elephants. But it would be mistaken to believe that over 15 years of itinerant fieldwork he and his jemadars, mahouts and chauprassies were the only team members who contributed sentient individuality and intentionality to Ball's geological fieldwork.

We can, furthermore, compare elephant omissions and inclusions to foreground forms of othering, germane to both animal and postcolonial geographies. Jennifer Wolch and others have compared representations of certain animals to gendered and racial discrimination of humans, whereby certain species are characterised in a similar manner by which masculinist and colonialist reasoning placed women or 'natives' below the caucasian male on a cognitive and social hierarchy. In his *Himalayan Journals*, Hooker did not name one non-noble Indian, though he detailed every European by title, vocation and surname. He believed local Indians, without university education or Linnean classification, lacked comprehension of their own plants. His Bengali and Sikkimese assistants exasperated him: they had no reference works for comparison, they frequently believed species to be unique when European collections showed them to be geographical variants, and they troubled him with numerous local geographic names (Browne 1996, 313; Hooker and Thompson 1855, preface). As I discussed regarding traces above, to efface the knowledge, capacity and influence of local help was standard for colonial travel narratives (Pratt, 1992; Browne, 1996; see also Guha 1983, 18-76). To efface the work of animals raised fewer eyebrows. Yet, the 'work' of elephants (and other animals) may provide a methodological entry point for

postcolonial and other historians who seek to trace the agency and actions of local Indians during colonialism. Elephants, themselves and through their skilled human handlers and partners, reveal the extent to which European naturalists relied on locals and local modes of knowing. Thus, alongside calls to read colonial records against the grain (Guha, 1983, 9-11) and 'provincialize' Europe (Chakrabarty, 2007), examining historical animal others paradoxically opens a way to expose and examine the subjectivities and agencies human others in Indian colonial history (see Barua, 2013a, 2013b).

Conclusion

Colonial travel literature tends to not to query the term 'the traveller', and thereby implicitly posit this subject as an independent entity (Carter, 1987; Duncan and Gregory, 2002; Elsner and Rubiés, 1999; Pratt, 1992). Authors, particularly those writing from a postcolonial perspective, acknowledge that the traveller relied on local people, with whom rested crucial capabilities (Guha, 1983; Pratt, 1992). Yet the assumption that *the* or *a European traveller* took their journey, actions and decisions independently remains implicit. No traveller on elephant, however, travelled alone. Rather, they relied on, and integrated with, their vehicle. They joined an assemblage of human, animal, tradition, training and apparatus: the elephant's physical capacities and socio-emotional requirements; the millennia-old and life-long mahout-elephant relationship; the daily fuelling and maintenance; the howdah; and finally the rider. This was the heterogeneous 'envelope' of human-non-human relations through which journeys were undertaken. The elephant vehicle rendered the European traveller mobile and secure; able to accomplish months of marching over hundreds of kilometres of challenging terrain, in a hazardous climate and through politically uncertain territory. On elephant, travel was a multispecies accomplishment.

Recently, human geographers have sought to (re)conceptualise the animal as a person so as to recognise its subjective, individual characteristics. The riding elephant shows that it is equally important to recognise the more-than-animal qualities of vocational animals. 'The elephant' comprised training, social relations, human being (mahout), and material technology. Further, each

day, the mahouts sustained the elephant as a vehicle: they fed (fuelled) and bathed it, inspected its skin and feet, removed thorns, oiled cracks and sores, and promoted callous growth to preserve it against the wear and tear of load and march. The howdah, or seat, along with parasol or canopy, completed the vehicle. Only an elephant thusly maintained could a traveller proceed day after day, raised above dust and glare, under shade, and fanned by the breeze. In this way, the elephant helped to shelter the traveller from the Indian climate, what nineteenth-century medical knowledge deemed the biggest threat to a European constitution (Annesley, 1825; Johnson, 1818; Mair, R.S., 1874).

The travels of geologist Valentine Ball and botanist Joseph Hooker show how the mahout-guided elephant served as an instrument and partner. The elephant, like other vehicles, enabled, constrained and mediated the scientific encounter with Indian landscape: it determined *where* and *how* Ball and Hooker observed and collected. Against the reasoning of the historian Richard Sorrenson, I have argued that the elephant can be considered a scientific instrument for three reasons: it demonstrated credibility and authority in the eyes of local Indians, thus helping to facilitate regional access; it enabled terrestrial entry and collection in riparian and thickly vegetated tracts otherwise unavailable or impractical; and, by virtue of its size, strength, training, mahouts and apparatus, it furnished a “superior, self-contained and protected” viewpoint, as well as and specimen transport. While access, freight and safety are mundane aspects of peripatetic science, the elephant’s role as a kind of ‘jungle frigate’ was nonetheless crucial to Ball and Hooker undertaking their expeditions.

While extremely useful in forest and riverine terrain, the elephant's most striking quality was arguably its subjective agency. Where route put life in jeopardy, the elephant took decisions for itself and rider. Intelligence and intentionality, in turn, suggest that vehicular volition was distributed: the traveller joined a bi-species chain of command. It is unsurprising that elephants sometimes hampered camp travel by escaping, hiding and other acts of disobedience. Such acts reveal an abiding contradiction of the mahout-elephant relationship: while intimate, cared-for companions, elephants remained in captivity against their will (Hart and Locke, 2007; Locke, 2011). Acts of defiance reveal not only intentionality but individuality, and thus the scholarly need, where possible, to approach certain animals as distinct, 'more-than-human persons' (Bird-David and Naveh, 2008), so as to guard against lay and scholarly marginalising of animal 'others' (Cronon, 1996; Philo and Wilbert, 2000; Wolch and Emel, 1998). In addition, the notion of othering in a colonial context raises the issue of travellers' rhetorical (and actual) treatment of Indian humans. Scientific travellers' faced disciplinary pressure to present themselves as independent, trustworthy and authoritative. So it is not surprising that elephants left *no discernible traces* on the maps Ball and Hooker later drew up. But rather than lack of elephant agency or utility, it was authorial convention and rhetorical artifice that effaced elephants' contribution to scientific expeditions.

The riding elephant afforded observation to lay as well as scientific travellers. Like a moving belvedere, the elephant not only permitted but prompted and channelled visual observation, thereby mediating a rider's encounter with landscape. The howdah's height often afforded clear prospects over the surrounding structures and vegetation, while the elephant's deft step and all-terrain ability expanded vantages. As such, the elephant provided the

mundane, enabling configuration of conditions upon which aesthetic contemplation is based. In addition, as a non-predatory herbivore with acute senses of smell and hearing, the elephant allowed travellers to approach a range of fauna. Thus, the riding elephant enabled (and constrained) the gaze and the embodied relationship of traveller with Indian surroundings. In this way, the elephant, in addition to sheltering and separating traveller from Indian environment, as functioned as a preserving vessel *through which* travellers accessed, witnessed and recorded exotic, other nature.

Finally, the elephant's intelligence and subjective highlights two aspects of non-human agency: one concerns the animal, the other historiography. First, there is the question of why Indian elephants would submit to a 'tamed' life at all. Some did not. Ball, Hooker and others chronicled the escapades of disobedient, violent and escaped elephants (Ball, 1880; Forsyth, 1889; Hooker, 1854). Elephants possessed the strength, cunning and opportunities to flee. But rather than fetters, mahouts mostly relied on their relationship and food provision to secure their animal charge. Yi-Fu Tuan and Marjorie Spiegel have interpreted animal training and domestication as perhaps *the* example of human dominion over non-human animals (1984, 1996). Stephen Budiansky, by contrast, accords animals agentic participation even while they appear subservient or subordinate to their human 'masters'. He thus inverts the question of domestication and (co)evolution from how humans reshaped animals for their own purposes to 'why animals chose domestication' (1992, 2000). In travellers' accounts trained elephants benefitted from their mahout relationship: food, baths, care, affection, and movement. Recent biological and ethological research affirms that healthy, happy elephants require such social bonds, emotional security and wide-ranging exercise. This is not to claim that elephant-human relations were universally rosy, as Ball's experi-

ences attested. Yet the mutual trust which developed – such as allowing an elephant to babysit one’s toddler – suggests that elephants possessed some degree of choice and fulfilment in their captive lives, especially considering their capacity to escape or rebel. While I have said that mahouts ‘operated’ their elephants, cooperation more accurately describes the alliance. Elephants, in their own interests and for their own purposes, collaborated with their mahouts.

If mahout and elephant collaborated, then travellers’ journeys can be understood as a multispecies accomplishment, and their accounts can therefore be understood, to a certain extent, as co-authored: the elephant participated in and influenced the traveller’s experiences, and thereby shaped the ‘traces’ which now remain in ink and archive. Theoretical claims about the minimal properties of a historical subject generally include the possession of intentionality and consciousness (Benson, 2011). Travellers’ accounts, from banal midnight marches to Rousselet’s perilous traverse, indicate that elephants possessed both these latter, and therefore ought to be considered an actor in the theatre of history.

Part IV: The railway

Darjeeling, its railway link and Indian tropicality

Few technologies have shaped Indian history and travel more than the railway. In 1853 the first locomotive sputtered from Bombay to Thana. Fifty years on, the network stretched almost 24,000 miles, the world's fourth largest, racking up nearly 100,000,000 passengers and over eight billion passenger-miles (Kerr, 2005, 1-5). A survey from c.1840 to c.1990 finds that few topics of India's colonial and postcolonial past have generated as much record, official, unofficial and scholarly (ibid, 5). An ever-growing historical corpus testifies to the economic, political and cultural import of the Indian Railways to British colonialism, decolonisation and modern India.³⁴ On the ground, lines, stations, crossings, bridges, viaducts, switchbacks, cuttings, workshops and yards have physically moulded urban and rural India. In short, even a century ago, millions rode billions of miles, infrastructure re-configured the landscape and few topics attracted as much comment.

Like other Indian lines, Calcutta-Darjeeling railway link transformed the experience of travel. The journey had long been difficult. The East India Company officers who first reconnoitered *Dorje-ling* in 1829 took nearly three weeks to ride and trek into the colossal maze of forested spurs and valleys

³⁴ For few recent, notable works see: D.R. Headrick, *Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (New York, OUP, 1981); *The Tentacles of Progress: Technology Transfer in an Age of Imperialism* (New York, OUP, 1988); D. Arnold, 'Bodies of Knowledge/Highways of Steel: Science and Technology in Modern India', *South Asia Newsletter*, Centre for South Asian Studies, School of Oriental and African Studies, University of London, no.17 (January 1991), 9-11; I.J. Kerr, *Building the Railways of the Raj, 1850-1900* (Oxford, OUP, 1997); *Modern India*. L. Bear, *Lines of the Nation: Indian Railway Workers, Bureaucracy, and the Intimate Historical Self* (New York, CUP, 2007). For an overview of sources see: J. Hurd and I.J. Kerrs, eds., *India's Railway History: A Research Handbook* (Brill, Leiden, 2012).

which compose the Himalayan foothills (Pinn, 1987, 3). A decade later, with an East India Company military-built road leading down to the plains, the journey from Calcutta still required a fortnight by boat and bullock cart (Edwards, 1866). Completed in 1881, the Darjeeling Himalayan Railway connected to the North Bengal State Railway and Eastern Bengal State Railway, cutting this journey to under 24 hours. Faster, cheaper access increased visitor numbers. In its first year, over 8,000 passengers took the train to Darjeeling; by 1911, over 250,000 rode the rails annually (Martin, 2000, 27). The journey's speed and ease was astonishing. "Anglo-Indians", wrote the mountaineer Douglas Freshfield, "think nothing of running up there for a 'week-end'" (1903, 30).

Darjeeling's bracing air and 'salubrious' conditions drew most Western visitors, as did its enclave-like conditions above the Indian plains. Established by the Government of Bengal as a military sanitarium, Darjeeling originally drew convalescing soldiers and officers. Hotels, bungalows and tea 'gardens' replaced pine forests along the ridge. By the turn of the nineteenth-century, with the Suez Canal and Pacific & Oriental steamers linking London and Liverpool to Calcutta, European and American tourists and colonial residents on annual leave made the Himalayan retreat one of the largest and most popular of over 200 hill stations in India and an internationally renowned destination – 'The Queen of the Hills' (e.g. Cook, 1912; Murray, 1911, 1901). Soldiers, employees and officials took seasonal refuge, invalids convalesced, and children were sent to boarding school. Europeans avoided discomfort and illness (hill stations were often located beyond the elevation range of anopheles mosquitoes, vectors of malaria) and enjoyed temperate climes, 'civilized company' and familiar recreation (Kennedy, 1996; Kenny, 1995). Itineraries, such as Mark Twain followed during his 1895 visit, typically included prom-

enades on the mall, tours of the bazaar, fireside repose and, with the right contacts, an evening at the Planter's Club (Twain, 1897, 222).

The railway journey combined with Darjeeling's other main draw: landscape. Mountain vistas charmed visitors in search of picturesque and sublime sightings. The top attractions were Kanchenjunga's broad peak (Figure 6), third highest in the world, and the dawn panorama of Everest and other Himalayan giants from Tiger Hill. "The view of unrivalled Mountain Scenery", wrote Murray's India handbook, "is unspeakably grand", and with Darjeeling's moderate climate, "have rendered it the most important sanitarium of Bengal" (Murray, 1911, 315). "The spectator in Darjeeling town", described the *Imperial Gazetteer of India*,

stands on the stage of a vast amphitheatre of mountains, which in the spring form a continuous snowy barrier extending over 150 degrees of the horizon. ... In front of him, at a distance of 45 miles, the great twin peaks of Kanchenjunga tower above the titanic group of snowy mountains ... and completely dominate the landscape (Quoted in Gordon, 1990, 46)

These alpine views were made more special by their seemingly incongruous situation in, or beside, the warm Indian climate. Passengers arriving to pine forests and snowy summits had departed from a tropical river delta the day before, sped over 300 miles of Bengal plains in 16 hours and finished with vistas of perpetual snow. For Western travellers, destination and departure resided in different 'worlds'.

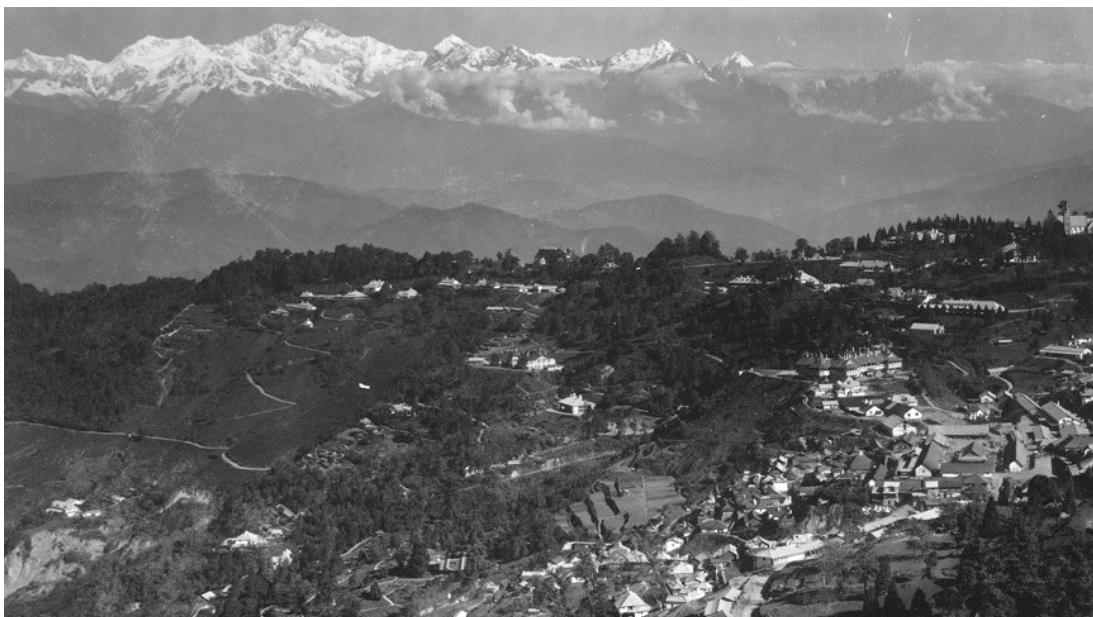


Figure 6: “General View Darjeeling. 1912.” by Bourne and Shepherd Photography (photograph taken c1885). From the British Library Asian and African Studies collection.

The Calcutta-Darjeeling railway journey thus spanned a crucial biological, climatic and discursive frontier: that between the tropics and the temperate zone. Over the course of the nineteenth-century European medical discourses, artistic tropes and naturalist narratives had placed India in the ‘tropical world’ (Arnold, 1998). This discursive character was ambivalent, like broader European representations of the tropics. On the one hand, the Indian climate was considered uncomfortable and hazardous to European constitutions (Curtin, 1989; Harrison, 1999; Kennedy, 1990). Influential medical treatises attributed the majority of illnesses to India’s tropical heat, humidity and miasmatic airs (Johnson, 1818; Johnson and Martin, 1846; Mair, R.S., 1874). Tigers, elephants and poisonous snakes, seasonal deluges and violent cyclones, all rounded off an alien and perilous natural repertoire.

On the other hand, literary, artistic and botanical sources depicted Indian landscapes as exotic, exuberant and picturesque. The paintings of William

Hodges, the Daniells and other itinerant artists depicted monuments clothed in epiphytes and surrounded by swaying palms and seascapes (Archer, 1989, 1980). Himalayan travellers published accounts and aquatints of mountain scenery that ranged from the bucolic picturesque to a rugged sublime that “overpowered” the mind with “gigantic wonders” (White 1871, 40 quoted in Kennedy, 1996, 43). Naturalists catalogued vibrant flowers, curious animals and luxuriant vegetation to rival tropical paragons such as Brazil and the West Indies (e.g. Hooker, 1854; Royle, 1840). Thus, like Alexander von Humboldt’s South America, India was also a place of natural beauty and sentimental wonder (Arnold, 1996; Driver and Martins, 2005).

While historians have studied Indian tropicality, hill stations and railways, none have discussed how the mobile railway carriage affected travellers’ interpretations of Indian climate and landscape. Indian railway statistics, however, suggest that the moving carriage was a primary vantage point from which European travellers encountered India – both its ‘outside’ environment and its ‘inside’ social relations. Few late nineteenth and early twentieth century accounts of India fail to mention the expanding Indian network and the experience of train travel. From the late 1860s on John Murray and other guidebooks structured their itineraries and advice according to railway lines, schedules and associated infrastructure (Caine, 1890; Hull and Mair, 1878; Murray and Eastwick, 1881, 1879; Murray, 1898). Mountain railways, such as to Darjeeling and other hill stations, augmented the distinct perceptual and social milieux of the carriage by spanning climatic, biological and discursive ‘worlds’ – the tropics and the temperate zone.

Dennis Cosgrove has noted that the ocean voyage was a principle site for European experiences of the tropics. Ships served as transient platforms for

individual, elemental encounters and a broader representational repertoire which foregrounded sea, coast and weather (Cosgrove, 2005, 202). Over the late nineteenth and early twentieth centuries, the expanding Indian railways ferried millions of passengers and thereby became a primary way travellers encountered the landscape. In what follows I look at how one notable railway journey shaped Western visitors' observations at a vertical edge of 'tropical' India.

Railway perception, mobility and landscape

At the turn of the nineteenth century steamships, colonial ports, guidebooks and hotels enabled a small but increasing number of 'globe trotters' (elite citizens of Europe and America who could afford international travel) to reach the many corners of empire. At the same time, museums, art and exhibitions, as well as visual technologies like photography and the magic lantern, brought foreign landscapes home, stirring interest in unusual, 'far flung' locations and fostering desire to collect the foreign through photographs and souvenirs (Della Dora, 2007; Mitchell, 1989; Urry, 1990). Such enframing and accumulation of foreign scenery contributed to nascent 'tourist gazes', or modes of viewing foreign difference (Urry, 1990). Travellers ventured to a pre-arranged selection of landscapes and observed them via guidebook advice, organized tours and optical devices, such as the camera and binoculars. Sites were more than ever becoming sights. Touristic observational practices had the effect of domesticating nature. As the words scene and scenery suggest, gazing at foreign terrain *as landscapes* serves to transform physical and cultural reality into consumable object for aesthetic, recreational ends.

Despite their primary status as means of transport, vehicles also constitute technologies of perception. Sociologists and cultural geographers have begun to explore how the material specificities and cultural practices of trains, automobiles, bicycles, surfboards and even walking boots influence the experience of landscape (Bissell, 2009; Haldrup and Larsen, 2006; Hvattum et al., 2011; Larsen, 2001; Löfgren, 2008; Michael, 2000; Spinney, 2006; Thrift, 1996, 256-87). While much of such research examines contemporary topics, vehicular mediation of the environment is not new or limited to the present. On land, Alexander Wilson, Peter Merriman and Thomas Zeller have studied mid-twentieth-century motorway design and the phenomenological experience of driving to describe how the “moving viewpoint and the ‘plunging perspective’ of car travel” influenced road-side landscaping, on the one hand, and structured individual high-speed encounters, on the other (Merriman, 2006, 79; Wilson, 1991; Zeller 2010).

The railway transformed travellers’ perceptions of space and time in the nineteenth-century. To those accustomed to coaches drawn by animal power, the railway’s speed radically diminished travel time and engendered novel experiences of spatio-temporal mobility. As Wolfgang Schivelbusch notes, the ‘annihilation of space and time’ characterised early nineteenth century impressions of the effect of railway travel (Schivelbusch, 1986, 33). The *Quarterly Review* raved in 1839 over the ‘gradual annihilation, approaching almost to the final extinction, of that space and of those distances’ which previously separated nations. It was as if the citizens of England placed ‘their chairs nearer to the fireside of the metropolis’ and ‘to one another by two-thirds of the time which now respectively alienates them’ (Quoted in Schivelbusch, 1986, 33). “Distances practically diminished in the exact ratio of the speed of personal locomotion”, stated Lardner more directly in his

1850 *Railway Economy* (1850, 23). Train journeys took one-tenth of the time required by a horse-drawn coach (Harvey, 1991, 241). Distances seemed 'compressed' by mechanised motive power.

The train carriage's raised, linear route, lateral-facing windows and velocity also reconfigured passengers' observation of the 'outside' world. Velocity, encapsulation and windows engendered a novel, highly mobile mode of perceiving the landscape: a distanced, framed, emerging, passing and occluding vista which obscured the foreground and encouraged visual apprehension at a larger, 'holistic' scale. Wolfgang Schivelbusch described how this 'panoramic perception'

no longer belonged to the same place as the perceived object: the traveller saw . . . through the apparatus which moved him through the world. That machine and the motion it created became integrated into his visual perception: thus he could see only things in motion (1986, 64)

Over the past three decades historians, sociologists and geographers have examined how the railway altered perception, observation and experience of the environment (Beaumont and Freeman, 2007; Bishop, 2002; Bissell, 2009; Carter, 2001; Freeman, 1999; Larsen, 2001; Nye, 1996; Retzinger, 1998; Schivelbusch, 1986; Stilgoe, 1985). Schivelbusch (1986) famously opened such investigation by describing the phenomenological effects of carriage configuration, linear movement and velocity – as well as broader societal reconfigurations of time, distance and public space which the railway entailed. Scholars have since followed suit with a range of historical and contemporary studies, mostly investigating British and American contexts (e.g. Freeman, 1999; Larsen, 2001; Bissell, 2008, Beaumont and Freeman, 2007; Thrift,

1996; Retzinger, 1998; Löfgren, 2008; De Sapia, 2013). Indian railways, one of the largest national networks in the world since the late nineteenth-century, have not gone unstudied. Research, however, has focused on organizational, technological and political topics (Hurd and Kerr, 2012, 29-59).

In this chapter I take concern for onboard experience to the natural and social environments of India at the turn of the nineteenth century. I explore European and American passengers' experiences in the physical, social and discursive contexts of a journey to the colonial hill-station. Primarily, I examine vehicular mediation of landscape. Over the past two decades scholars have called for examination of practice-oriented and embodied accounts of the ways people encounter, move through and inhabit landscape (Cresswell and Dixon, 2002; Ingold, 2000, 1993; Merriman, 2006; Tilley, 1994; Wylie, 2006, 2002). Phenomenological, non-human and non-representational research, however, tend to neglect the complicating influence of the material technologies which mediate human-environment relations (Michael, 2000). Actor Network Theory, the ongoing 'material turn' and hybridity theory, for example, demonstrate the profound integration of people and their myriad devices (Braun and Whatmore, 2010; Callon, 2004; Coole and Frost, 2010; Hutchins, 1995; Latour, 2005, 1999; Law, 1986; Michael, 2000). Travellers, in particular, did not encounter the world 'naked' but via a range of material devices, especially vehicles (Haldrup and Larsen 2006, 280). I seek to illustrate how passengers experienced India *from*, *through* and *in* a moving train.

Second and more specifically, I explore European and American experiences of Indian nature, climate and landscape via mobile vehicular hybridity and rapid environmental change. Scholarly research on tropicity – discursive traditions which depicted 'the tropical world' as the West's environmental

other (Driver and Yeoh, 2000) – foregrounds issues of representation, power and subjectivity in Western scientific, artistic and popular depictions of those areas of the earth broadly referred to as ‘the tropics’ (e.g. Arnold, 2006, 1996; Driver and Martins, 2005; Driver, 2004; Livingstone, 1999, 1991; Stepan, 2001). In contrast to portrayals of predominantly negative European notions of Indian nature (Arnold, 2005; Harrison, 1999), I use the material, corporeal and cultural specificities of train travel to show that ‘the tropics’ could (also) be a space of pleasure, comfort and repose when encountered from a moving carriage.

Thirdly, I investigate how the specificities of railway and route shaped passengers' perceptions and experiences. The Darjeeling Himalayan Railway's structure, speed, route and surroundings differ markedly from those of conventional railways, and, as I will show, so did onboard and perceptual experience.

An itinerary is useful before departure. Darjeeling-bound travelers boarded the Eastern Bengal State Railway (EBSR) ‘mail’ train at Sealdah station at 4:00pm and headed north towards the Ganges river. Here, they disembarked, boarded a steamer and took dinner on deck during the hour-long crossing. At about 9:00pm they transferred to the waiting Northern Bengal State Railway (NBSR) for the overnight leg. They pulled into Siliguri station at 8:30am the following morning, where they ate breakfast on the platform and then boarded the Darjeeling Himalayan Railway for the seven hour ascent.

Part IV roughly follows the journey in question. In Section 14, ‘Across Bengal on the ‘vision machine’, I discuss how the railway journey influenced European and American travellers’ perceptions of Indian landscape and cli-

mate on the 300 mile journey north from Calcutta across the plains of Bengal. I open with a comparison of pre-railway travel across the Bengal plains of Calcutta and then discuss how the railway's speed, structure and schedule curtailed wider sensory phenomena, encouraged a mainly visual experience and arranged spatio-temporally passengers' patterns of observation. Finally, I explore how the perspective of a moving carriage combined with European and American travellers' aesthetic preconceptions, in this case tropically inclined gazes, to produce a 'mobile landscape glance' which both augments and alters theorisations of the European travellers' visual mastery.

In Section 15, 'Ascent by toy train', I discuss the ride from plains to hill station aboard the Darjeeling Himalayan Railway (DHR). First, I examine the transfer at Siliguri station, a physical and figurative threshold between low and highland India. I then detail how the DHR's diminutive structure and whimsical ambience converted the experience of a known fever district from hazardous, calculated passage to enjoyable, aesthetic contemplation. Third, I describe how the DHR's slow pace and rapid altitude gain immersed passengers in the track-side milieux and, higher up, evoked memories of home and temperate nature. Finally, I examine how the DHR's moving carriages and guidebook advice orchestrated passengers' encounters with the Himalayan landscape.

In Section 16, 'Social carriage space', I switch focus from outside to inside the carriage. I discuss how the material and psychological attributes of stations, platforms and carriages shaped British and American visitors' interactions amongst themselves and amongst Indian passengers. I have two aims. I want to examine how late nineteenth century British notions of racial and cultural superiority influenced Western passengers' experiences in the semi-public

spaces of the Indian railways. Then, I want to compare the differences in on-board experiences among travellers: between British and Americans and between Westerners and Indians.

Section 14

Across Bengal on the 'vision machine'

Prologue: before Bengal's railway

On the morning of January 30th 1848, the botanist Joseph Hooker travelled northwest from just outside of Calcutta. This passage, from his *Himalayan Journals* travel narrative, is typical of the detail with which he described the Indian landscape:

I was travelling over a flat and apparently rising country, along an excellent road, with groves of bamboos and stunted trees on either hand, few villages or palms, a sterile soil, with stunted grass and but little cultivation; altogether a country as unlike what I had expected to find in India as well might be. All around was a dead flat or table-land, out of which a few conical hills rose in the west, about 1000 feet high, covered with a low forest of dusky green or yellow, from the prevalence of bamboo. The lark was singing merrily at sunrise, and the accessories of a fresh air and dewy grass more reminded me of some moorland in the north of England than of the torrid regions of the east (Hooker, 1854, 6)

Hooker perceived and related the configuration of terrain and nearby settlements, the details of road surface, soil quality and species-specific forest hues, as well as odors, sounds and feelings. Half a century later the railway curtailed this slow, direct and multi-sensory encounter with Bengal. While passengers' aesthetic tastes still converged on picturesque and exotic natural features, the mobile carriage transformed patterns of landscape perception, observation and representation.

On the northbound, overnight journey

As passengers steamed north, they wrote mainly about what they saw. Whereas pre-railway travellers described a range of sensory phenomena, railway passengers related chiefly to visible phenomena. That few mentioned sounds, smells or sensations does not mean the EBSR or NBSR rolled smoothly or silently (see Figure 7). Their iron wheels and springless cars created a metallic rumble. British passengers refrained from mentioning on-board jolting or noise (Ball, 1880, 339; Browning, 1903, 36-37; Crane, 1907, 48-49; Del Mar, 1905, 83-86; EBSR, 1913; Hart, 1906). This trend may reflect national pride; many British residents and travellers considered the expanding Indian railway network a modernising force and evidence of the colonial right to govern (Kerr, 2005). American travellers, by contrast, were inclined to voice their discontent and compare Indian to American railways. Many were also wealthy and well-travelled – the pejoratively titled ‘globetrotters’ – and so were perhaps accustomed to First Class railway treatment at home. William Curtis, a journalist for the *Chicago Record Herald*, complained that the EBSR windows “never fit closely but rattle like a snare drum ... so loud that conversation is impossible unless the passengers have throats of brass like the statues of Siva” (1905, 147). Eliza Scidmore, travel writer, photographer and first female board member of the National Geographic Society, compared the shuddering, draughts and din of the NBSR to a ‘cattle-car’ (1903, 106).

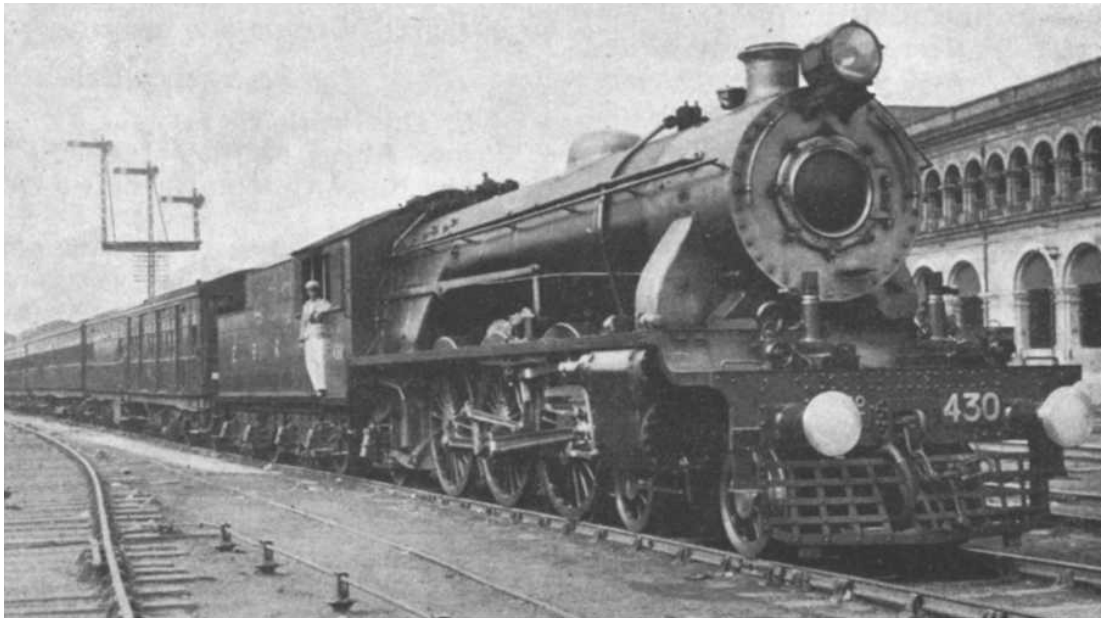


Figure 7: An 'Express Flyer' on the Eastern Bengal State Railway: "Darjeeling mail train at Sealdah, Calcutta". From *The New Zealand Railways Magazine*, June 1st 1931.

European and American passengers also tended to omit weather and temperature from their accounts, a curious exclusion considering that climate was a principal reason for many travellers' Darjeeling visit. The Darjeeling Himalayan Railway touted its line's mass, affordable access to a 'hill climate' – "often a matter of life or death to the European who has to work during the hot season in the plains of Bengal" (DHR Co. 1896, 13). It was common practice for British families of sufficient means to spend weeks at a hill station during the summer (Kennedy, 1996). Many tourists followed suit (ibid). Some found Calcutta's climate "so oppressive" they cut short their tour and took an earlier train to Darjeeling (1907, 223). Burrell conveyed the warmth of a platform in May prior to departure: "[y]our head is bursting; every breath you draw seems to scorch your lungs, as the burning sirocco blows down the station" (Burrell and Cuthell, 1893, 210). In his *Following the Equator*, Mark Twain quipped that the British colonial term 'cold weather' was merely a conventional phrase to "distinguish between weather which will melt a brass

door-knob and weather which will only make it mushy” – and also left Calcutta for Darjeeling on an earlier train (Twain, 1897, 295).³⁵

Narrative omissions regarding climate onboard do not equate to a lack of sentiment. Guidebooks, for example, recommended starting the journey in light clothing and one advised passengers to sit on the right (east) side of the carriage to avoid the afternoon sun (Caine, 1890; Cook, 1912; Dozey, E.C., 1922). Motion and material technologies furnish an explanation. Carriage windows came with Venetian shutters, (blue) toned glass and sometimes wire screens. Outside, a short awning skirted a gap, shading and ventilating the cabin (Crane, 1907, 48-49). Schivelbusch and others have illustrated how carriage windows enframe and thus mediate passing vistas (Bishop, 2002; Haldrup and Larsen, 2006; Larsen, 2001; Retzinger, 1998; Schivelbusch, 1986; Stilgoe, 1985). The NBSR’s toned, shaded and aerated windows mediated Bengal’s environment more generally. European travellers had long lamented India’s “vertical” sunshine and “noontide glare” (Eden, 1867, 22; Roberts, 1835, 63, 213, 1832, 66-70, 112). Worse, turn of the century medical theory posited that the intense ‘actinic’ radiation of tropical sunlight caused neurasthenic (nervous) disorders in white-skinned Europeans (Kennedy, 1990, 121-23; Woodruff, 1905, 23-144). Tinted carriage windows diminished the racially-specific danger of the Indian sun while also colour-washing the landscape. Burrell recounted that windows’ “subtle bluish tint makes every pool look beautiful” and praised the “beneficent company” of railway engineers for moderating “the glaring world outside” (Burrell and Cuthell, 1893, 209). Not all passengers were so grateful. For Scidmore, the “blue, depressing” and

³⁵ ‘Cold weather’ meant the relatively cold and dry period in north and east India from October to April, during which most European and American travellers visited India, as opposed to the hot and monsoon season from May to September.

“actinic light, made the shabby car drearier and dingier than usual” and “gave a wintry, melancholy look to the flat Bengal plain” (1903, 257). These windows had a further aesthetic effect: the ‘outside world’ was to be appreciated with the eyes alone. While former mainstays of Indian transport – the carriage and the palanquin – were equipped with venetian blinds and sliding doors, they required the rider to cocoon themselves blindly inside to mitigate the elements. Like automobile air-conditioning half a century on, these shading, shielding and ventilating apertures allowed the passenger to gaze uninterruptedly at any season and under any conditions (Wilson, 1991, 37-38). Non-visual sense, however, were pushed to margins of experience.

Because the train departed Calcutta at 4:30pm, any glare soon faded to dusk. Sun dimmed to darkness as passengers steamed across the Ganges. After landing on the other side, passengers boarded the NBSR, found their compartments and, if possible, slept. If travellers mentioned this journey segment, they described their compartment, sleep or awakening (Baxter, 1882, 86; Scidmore, 1903, 146-50). Darkness and slumber effectively shrouded nine hours and nearly 200 miles of Bengal topography. This spatio-temporal omission evokes John Ruskin’s comment that railway travel, “is merely ‘being sent’ to a place, and very little different from becoming a parcel” (Quoted in Schivelbusch, 1986, 54). Overnight transit could also exaggerate the impression of velocity and transition. William Baxter, a Scottish politician touring India, awoke abruptly hundreds of miles from his last point of consciousness:

I made myself comfortable for the night soon after entering the narrow-gauge railway on the other side (of the Ganges), fell asleep shortly after 9 o’clock, and was astonished when a man shouted in my ear at 6 a.m., ‘next station Siliguri’ (Baxter, 1882, 91)

David Bissell uses the term 'landscape vigilance' to describe a pattern of heightened, journey-segment-specific scrutiny from the carriage window: passengers tend to actively perceive the landscape following departures and preceding arrivals (Bissell, 2009, 49). Amanda Lagerkvist's likewise notes that arrival elevates visual attentiveness, 'sharpening' observation (Lagerkvist, 2004, 321-42). With morning and sunrise, passengers aboard the NBSR observed the passing landscapes with relative vigour. Awake, upright and aware of their proximity to the Himalaya, passengers noted the lush vegetation, urban structures and mountains emerging on the horizon. Official, discursive prompts united with transit phenomenology. Guidebooks advised travellers to survey the horizon on the run-up to Siliguri, praising a first acquaintance with these "loftiest summits on earth" (DHR Co., 1896, 9, 20; EBSR, 1913, 32). Then there was the morning milieu inside carriages: the light of daybreak, the diminishing roar of deceleration, the awareness of imminent arrival, and the sight fellow passengers craning their necks. The 'mighty' Himalaya approached; passengers were on the lookout. This amplification of interest resembles the arrival at another of India's revered sights, Agra. Drawing towards the station, an American described how, "every one was on the *qui vive* to obtain a first glimpse ... all heads were out of the window, looking eagerly for the 'Taj'" (Mayne, 1869, 167).

This descriptive pattern underlines a wider rhythm of onboard observation on the journey to Darjeeling. Rather than continuous or uniform, passengers' accounts display peaks and troughs. They tended to record the landscapes following departures and preceding arrivals: the cultivated pastureland north of Calcutta, the Ganges riverside and the approaches to Siliguri and

Darjeeling stations. On the go, spatio-temporal intensities of encounter shaped passengers' observation.

If speed, structure, schedule and stops shaped passengers' observation of the landscape, then mobility challenges what some comparative literature and cultural geography depicts as the European traveller's position of visual mastery (Pratt, 1992; see also Spurr, 1993; Gregory, 2001). Train vision was hybrid vision; passengers did not look autonomously but "*through* the apparatus" (Schivelbusch, 1986, 64, emphasis in original). In her canonical analysis of travel literature, *Imperial Eyes*, Mary Louise Pratt framed the 'Euroimperialist' traveller as a self-governing subject enabled and (to a lesser degree) constrained by the power asymmetries of colonial social relations (1992). The impression of such visual mastery was bolstered in the late nineteenth-century by the capacity of the camera to freeze nature's flux and present it before metropolitan audiences (Ryan, 1998). But the melding of train and traveller redistributed the agency of this gaze amongst human and non-human entities, both amplifying and contorting Pratt's 'monarch of all I survey' mode. On the one hand, passengers looked out from the yet more detached and dominant position of industrial technology to appraise the sights of Bengal. On the other, they saw what they could of one topographical corridor, sideways, through a framed rectangle at 40 miles per hour, much of it traversed at night.

Monotony and tropicality

The 'travel space' between Calcutta and Siliguri garnered less enthusiasm than Himalayan peaks. Onboard and on the go, passengers mainly described

a flat, shifting and indistinct panorama. British residents and first-time visitors saw things differently. Newcomers, especially Americans, tended to describe the track-side prospects (e.g. Scidmore, 1903, 105; Twain, 1897, 187-90). 'Old India hands' often lacked such enthusiasm. Lawrence Dundas (Lord Ronaldshay) governed Bengal between 1917 and 1922. For him, it was "difficult to discover in these three hundred miles any feature which is of assistance in painting the landscape upon one's memory" (Ronaldshay, 1923, 57). Another resident noted that, "for the new arrival to the country", railway travel was "really a most admirable arrangement, giving opportunities of studying the scenery and the peoples, but it is apt to be a little tedious to the well-seasoned soul" (Hart, 1906, 214).

In contrast to the overwhelming impressions of the mid nineteenth century described by Schivelbusch, Larsen and others, the level Bengal plains subdued some passengers (Bissell, 2009; Larsen, 2001; Schivelbusch, 1986). Several used the adjective monotonous, usually in conjunction with flatness and dryness. W.S. Caine in his *Picturesque India* guidebook, reassured readers that in traversing "the great fertile plain of Bengal, nothing is lost by a night journey through its monotony" (Caine, 1890, 344). This sentiment was not new or unique on Indian railways. Vivian Majendie, a Company officer on Bengal's first railway, found the "almost maddening smoothness ... wearisome to gaze upon" (Majendie, 1859, 65-67). European passengers across northern India echoed the tedium of flat, arid field witnessed from the carriage window (Dyson, 1913, 94-95; Gay, 1877, 263; Mayne, 1869, 158; Swinburne, 1907, 36). Even the French Indiophile and photographer, Louis Rousselet, found the countryside from Delhi to Umballa "interminable and monotonous". "In fact", he continued, "the traveller would do well to pass through by railway" (Rousselet, 1882, 506).

Jonas Larsen records how early train travel engendered a “hallucinatory ecstasy” joined to the feelings of power, freedom and bodily mastery over space and nature through “pure speed” (Larsen, 2001, 84). The passage across Bengal created its own chimera. Velocity combined with flatness and fog (a hallmark of north India’s dry season) to blur the horizon. For Twain the haze exaggerated the ebb of apparently identical fields and hamlets, producing a flowing mirage: the “perfectly level plain stretch[ed] away and away and away, dimming and softening, to the uttermost bounds of nowhere” (Twain, 1897, 197). Speed visually duplicated the succession of villages, seemingly merged, like “a mighty City, hundreds of miles long, hundreds of miles broad”. For Majendie, the blend of speed, level pastures and repetition had a “narcotic effect”: “you find the scene so unchanged as almost to tempt you to believe that you have not moved a yard for the last half-hour” (Majendie, 1859, 67).

Passengers almost invariably described iconic tropical vegetation. Descriptions of bamboo, banana leaves and palm-trees comprised the majority of in-transit, non-juncture Bengal landscape narrative – a pattern found in European passengers in Ceylon (Mattson, 1891; Twain, 1897; Burrell and Cuthell, 1893; Ballou, 1894, 209-10; Cave, 1900, 49-50; Gay, 1877, 115; Murray and Eastwick, 1879, 694). William Burrell described the horizon as “a waving line of feathery palms and other maritime tropical growths” (Burrell and Cuthell, 1893, 58). For Hans Mattson, Bengal became 300 miles of “level lowland teeming with gardens, palm groves and rice fields” (Mattson, 1891). This roll-call of tropical archetypes in general and of palm-trees in particular, registers the aesthetic impact which travel accounts, natural science and landscape paintings had bestowed upon these preeminent species (Stepan,

2001, 19). By the late nineteenth century, writes Nancy Stepan, “the palm-tree became the ubiquitous sign of the tropics, ... instantly signaling less a botanical species than an imaginative submersion in hot places” (ibid, 19).

A passage from Twain’s travel narrative captures several of the ways that a mobile windowscape mediated the Western gaze:

What a soaring, strenuous, gushing fountain spray of delicate greenery a bunch of bamboo is! As far as the eye can reach, these grand vegetable geysers grace the view, their spoutings refined to steam by distance. And there are fields of bananas, with the sunshine glancing from the varnished surface of their drooping vast leaves. And there are frequent groves of palm; and an effective accent is given to the landscape by isolated individuals of this picturesque family, towering, clean-stemmed, their plumes broken and hanging ragged, Nature’s imitation of an umbrella that has been out to see what a cyclone is like and is trying not to look disappointed. And everywhere through the soft morning vistas we glimpse the villages, the countless villages, the myriad villages, thatched, built of clean new matting, snuggling among grouped palms and sheaves of bamboo; . . . And there is a continuously repeated and replenished multitude of naked men in view on both sides and ahead. We fly through it mile after mile, but still it is always there, on both sides and ahead – brown-bodied naked men and boys, plowing in the fields. (Twain, 1897, 205)

At a broad experiential register, Twain’s description is visual, distanced, aesthetic and positive. Since he did not set foot on the Bengal plains, the strains of heat, sun, fatigue and fever are absent. Instead, Twain appreciated the artistic qualities of Bengal as an exotic composition. This affirms Schivelbusch’s notion of ‘panoramic perception’ whereby a moving carriage frames a shifting, framed visual intake sundered from the milieu of the landscape and echoes Ralph Emerson’s remark that places passed onboard become “like pictures on a wall” (Schivelbusch, 1986, 52-69; quoted in Stilgoe, 1985,

250). At a perceptual register, Twain apprehended the Bengal plains *en masse*. He scanned across the horizon, making out large objects, such as trees and fields, in relation to the landscape as a huge “living whole”. Twain’s vision seems drawn to the landscape’s macro-scale materialities: rhythms, shapes, colours and expanse. Furthermore, and akin the illusory haze, he apprehends what Larsen would call a novel landscape: the moving train reveals otherwise ‘hidden’ qualities – such as bamboo geyser-like ‘spoutings’ – only accessible through the “framed liquid perspective” of a raised, lateral window multiplying and ‘replenishing’ visual impressions and setting the scene in motion (Larsen, 2001, 90).

Twain’s brief account celebrates quintessential icons of tropical nature: the bamboo grove, the banana leaf and the palm tree (Stepan, 2001; see also Arnold, 1996, 2006; Smith, 1985). By relating these specific, symbolic features, Twain rendered passing Bengal a “cultural image”: Indian topography and vegetation according to Western visual convention, semiotic vocabulary and descriptive idiom (Cosgrove and Daniels, 1988, 1). Furthermore, Twain deciphered the menace of tropical nature without actually witnessing it; the drooping leaves of a palm tree signalled the violence of a tempest rather than plant physiology, or gravity (Arnold, 2004, 339-53). Ronaldshay, too, appreciated Bengal’s “bamboos, palms, plantains, mangoes, banyans” and other ‘sumptuous’ foliage, but reminded readers they were the products of a “languorous and vapour-laden atmosphere” (Ronaldshay, 1923, 7).

Twain also emphasised an anthropic icons of the tropic: exposed brown bodies. These, however, remained a faceless multitude subsidiary in description to vegetative features, endorsing John Stilgoe’s remark that railway perception foregrounds the “physical fabric” of a track-side landscape rather than

its inhabitants, whom writers relegate to coarse “types” or anonymous “silhouettes” (1985, 93). Silhouettes, moreover, is an apposite term, for Twain depicted Bengalis by two characteristics – darkness and ‘nakedness’ – conjuring associations with Africa, pan-tropical peoples and cultural primitivism, and laying an implicit contrast to white, clothed Europeans (Stepan, 2001, 84-103).

Finally, Twain’s rhythmic prose mimicked the pulse of passing objects. The train accelerated the landscape and Twain captured this visual tempo with staccato sentences, a written cadence also employed by Victor Hugo, Charles Dickens and other late nineteenth-century authors (Dickens, 1896, 59-67). If Twain’s mobile encounter shaped his description then the ‘projection model’ of European visuality was inverted by motion: rather than (only) casting his ‘way of seeing’, his vision and depiction was (also) fashioned by the phenomenological particularities of speed, flow and ‘multiplication’.

The accounts of Twain and others affirm Larsen’s contention that the “sensuous economy” of a railway foregrounds sight to the extent that the train is not merely a mobility machine but also a ‘vision machine’ (2001). This vision machine altered the ‘gaze’ as it has been conceptualised by travel and tourism scholars (e.g. Urry, 1990; Pratt, 1992; Retzinger, 1998). Onboard, passengers remained focused on exotic features of foreign difference. But they registered these as a succession of glimpses. Speed, encapsulation and the lateral framing of carriage windows converted visual apprehension from the static gaze of landscape painting and photography to the transient glance of a moving vehicle. Larsen does not, however, speculate what results when travellers compile such glances over a journey. The accounts studied here suggest that such mobile interpretation operates in two stages. First, passen-

gers view scenes recurrently but not continuously: speed, schedule, stops and onboard activities disperse observation over the journey and emphasise the spaces preceding arrival and following departure. Travellers then assemble their glances. The result is amalgamation: a mosaic of visual recollections fused into one or more synthesised images which stands for the region as a whole. In the case of Bengal, these images tended to be monotonous pastureland and celebrities of tropical vegetation.

Ascent by toy train

The morning transfer at Siliguri was perhaps the most notable event on the Calcutta-Darjeeling journey. The station town was both juncture and junction, lying at the foot of the Himalaya and at the intersection of broad and narrow gauge lines. Siliguri thus formed a geological, biological, ethnic and cultural confluence. Put another way, Siliguri sat at the threshold between actual and discursive 'worlds': tropical India and temperate Himalaya. As passengers approached the station, a colossal bulwark hove into view. "As one puffs along", wrote Ronaldshay, "the amorphous shapes in front of one take on clearer definition, and before long stand out as giant tree-clad spurs of the outer Himalaya" (1923, 11). Douglas Freshfield, on his way to circling Kanchenjunga, advised the would-be passenger to wake at dawn, long before arrival, and watch as the sun lit up the white peaks like "roseate flames" (1903, 31). The perpetual snow above contrasted with fecund vegetation flanking the tracks. According to the EBSR guidebook, "the coarse grass of the jungle, growing as high as an elephant, is a good index to the luxuriance of the soil" and "the verdure of the forest-clad slopes, ... suggests a comparison with ... the Malay Peninsula" (1913, 42).

Lush vegetation, undulating terrain and ethnic contrasts signalled multiple, overlapping frontiers: between plains and mountains, India and China, tropics and temperate zone. Siliguri had long served as trading post where footpaths wending down from Sikkim and Tibet met India. For arriving passengers, the sundry 'Chinese', 'Mongolian' and 'Tartar' ethnicities jumbled with the more familiar Hindu and Muslim Bengalis; local faces and garb were

icons within the landscape confirming and heralding geographic transit. And unlike the characteristic human density seen in bustling Calcutta or the Bengal hamlets, “it [is] noticed from the train as one passes that the population is very scanty” (ibid, 42).

Orvar Löfgren observes that early railway travellers deciphered transit across the ‘social landscape’ of country to city via the countenances, bodies, behaviours and garb observed on approach and then disembarkation, a transition which could occasion “the cultural shock of entering a different world” (2008, 335). The Dickens quote invoked above regarding arrival to London conjures the transformation Darjeeling-bound passengers witnessed from the moving carriage: “[t]he temperature changed, the dialect changed, the people changed, faces got sharper, manners got shorter, eyes grew shrewder and harder” (1896, 326).

Scidmore, too, interpreted journey progress through physiognomy and mien:

By six o’clock it was light enough to see that the people had changed overnight with the temperature. We had left the sleek, supple, barefooted Bengali ... and come to a race with high cheek bones and flat Mongol faces. (1903, 106)

Overnight passage could augment the sense of geographical and ethnic headway. Passengers awoke seemingly at the lower slopes of Tibet. Lord Ronaldshay described the arrival:

The traveller from Calcutta steams into Siliguri in the early morning, and if he is not too weary to exercise his powers of observation he will at once find indications that he stands upon the threshold of a different world. The monotony of the country

through which he has been passing is interrupted. It is interrupted most palpably by the appearance of a new type of humanity. Men and women with strongly marked Mongolian features and wearing more ample and more picturesque garments make their appearance upon the scene (1923, 10)

The Terai by train

After 16 hours in transit, passengers pulled into Siliguri station. This colonial frontier town, wrote the EBSR guidebook, “is known to the traveller only as a stepping stone on the way to the hills” (1913, 30). For many, the transfer to the DHR marked the start of their Himalayan journey rather than a halfway stop. While breakfasting on the platform canteen, passengers got their first look at the diminutive mountain railway. Then they took their seats “in perhaps the most extraordinary and toy-like tram railroad which exists on the face of the earth” (Baxter 1882, 91).

Scholarly writing on observation from the train – including this paper so far – posits three physical conditions of railway travel: the train carriage is a sealed container which moves relatively fast, the tracks upon which the train moves are raised and level, and the terrain traversed is predominantly open (Beaumont and Freeman, 2007; Bissell, 2009; Larsen, 2001; Retzinger, 1998; Schivelbusch, 1986; Stilgoe, 1985). The DHR countered each assumption: it was open, slow, ran along inclined rails and passed through forests. “This mountain railroad is so different from all other railroads”, recounted the Swedish-American diplomat Hans Mattson, “that it deserves a special description”: the carriages measured ten feet long and six wide, rolled on twelve inch wheels and seated four (1892, 232). Each carriage, wrote the

Wide World Magazine, was “no bigger than an ordinary dining-table” (Ghosh, 1898, 497). Rather than roof and walls, each was canvas-topped and open, with roll-down curtains, “so that passengers can get on and off easily and have an open view” (Mattson, 1892, 232). The steam engine chugged along at 10 miles per hour and required frequent refill stops. Its two-feet wide tracks passed through forests and plantations, skirted towns, roads and precipices, and relied on a series of zigzags and loops to overcome the gradient as it scaled a mountain ridge.

The DHR’s dimensions, open structure and unhurried clip lent the ride a convivial air – “like a drive in an open carriage” (Waddell, 1900, 13). Stepping “into a railway carriage which might easily be mistaken for a toy”, mused Ronaldshay, “the whimsical idea seizes hold of one that one has stumbled accidentally into Lilliput” (1923, 11). “When the curtains were up”, Twain enthused, “one was substantially out of doors, and could see everywhere, and get all the breeze, and be luxuriously comfortable. It was not a pleasure excursion in name only, but in fact” (1897, 297).

The DHR’s novelty seemed to slacken European passengers’ environmental concern. Few recorded that for the first hour the railway passed through the Terai, a band of seasonal swamp forest renown for malaria (see Figure 8). Their lack of anxiety over climate, air or illness is notable. Early nineteenth-century British travellers, following the example of hill peoples, adopted the practice of travelling long stages, often into the night, to avoid sleeping in the Terai – a practice continued by Europeans travelling to the hills by horse and carriage in the early twentieth-century (Guneratne, 2002, 20-24; e.g. Donaldson, 1900, 9-17). One passenger did mention medical preparation for the Terai traverse. As it “would be almost certain death for an European to live

there for any length of time”, wrote Mattson, “it is customary even in passing through the country on the railway train to take double doses of quinine as a precaution” (1892, 238-39). The Terai had been a key piece of rationale for the DHR’s existence. When engineer Franklin Prestage submitted his proposal to the Bengal government in 1879 he listed nine reasons why the DHR was necessary; three concerned climate and health.³⁶ The DHR Co. leveraged medical and popular dread to tout their line’s medical and social benefits: “railway places within the means of hundreds of the poorer classes to avail themselves of the benefits of a ‘hill climate,’ often a matter of life or death to the European who has to work during the hot season in the plains of Bengal” (1896, 13).



Figure 8: “Darjeeling Avenue With Train” postcard by Das Studios (c1920).

³⁶ These reasons were: by providing expedient, reliable transportation, the railway would “render health-restoring sanatoria to the capital of India”, “be a boon to poorer classes of Europeans in Calcutta to visit the hills” and “nine miles of *terai* between Silligoree and Sookna could be traversed with the minimum of discomfort in little more than half an hour” (quoted in Martin, 2000, 57).

Pramod Nayar notes that late nineteenth-century Himalayan travel narratives increased danger tropes precisely when the railways had ‘opened up’ this frontier (Nayar, 2008, 132-37). While guidebooks embellished descriptions of the journey with tales of wild elephants and tigers, few DHR passengers played up risk. The DHR ride converted the Terai transit into a pleasure excursion, as Twain put it. Onboard, those who acknowledged the Terai’s reputation contrasted it with their comfort. For one, the relief of shade, breeze and foliage were so agreeable that it came as “a shock to remember that this is the Terai, one of the most deadly fever districts in the world” (Crowley, 1895, quoted in Martin, 2000, 54). The British explorer and philologist Lawrence Waddell described steaming past “deserted tea-plantations in clearings in this deadly forest, ... for in this poisonous atmosphere no labourers can be induced to settle” (1900, 5). Then, in the same paragraph, he wrote that “ensconced in arm-chairs in one of the open cars, we were soon rattling gaily across that dreaded belt of fever-laden forest”. Most appeared to forget or ignore climate and salubrity altogether. Those who remembered, like Waddell, matched it incongruously with tranquility or delight (e.g. Crowley, 1895, in Martin, 2000, 54; Mattson, 1891, 238-39). Instead of fretting over heat, miasmas or fever, authors compared the fecund vegetation to that of Brazil, Borneo and Malaysia, and appraised the passing ‘avenue’ of vegetation, “festooned with ferns, pepper-vines and ropes of many-hued climbers” (Waddell, 1900, 13; EBSR, 1913, 42; DHR Co., 1896, 20; Ghosh, 1898, 497; Mattson, 1891, 232).

The DHR’s open carriages, however, afforded little protection from the Terai beyond relatively brisk passage and a breeze which deterred mosquitoes. The DHR transformed the encounter with the Terai psychologically, rather

than epidemiologically: it diminished spatial contact while aestheticising surroundings. The train discharged Westerners from the heat, bustle and workaday responsibilities of lowland India while lifting them in a paragon of European industrial modernity towards a temperate outpost of health and recreation. The thought alone could be cathartic. Merely entering the mountain train, wrote Burrell, filled one “with a languid feeling of joy that you are really ‘off to the hills,’ mixed with an equally faint pity for those who are left behind” (Burrell and Cuthell, 1893, 207-08). Passengers on hill railways to Simla, Ootacamund and Kandy expressed similar optimism.³⁷ Ballou, for example, described the lurking miasmas between Colombo to Kandy yet rhapsodised over the lush vegetation and mobile prospects (Ballou, 1894, 209-15; see also Cave, 1900, 48-50; Gay, 1877, 115; Murray and Eastwick, 1879, 694).

Orvar Löfgren has used the term ‘mindscape’ to convey a suite of novel emotional states engendered by the psychological and material settings of early railway travel in Europe (Löfgren, 2008, 348). The DHR seems to have initiated a temporary psychological space by separation and aestheticisation. The DHR’s motion induced what Marc Augé would call a “discontinuity between the spectator-traveller and the space of the landscape” (1995, 68). Onboard, passengers *passed by* rather than inhabited the Terai. At the same time, the moving carriages presented a scrolling tableau of vegetation, valleys and hills. Passengers extolled the exotic epiphytes, vines and orchids. The destination influenced en route experience. The DHR carried passengers inclined to repose and observation by the purpose of their journey (e.g. Andrews, 1990; Urry, 1990). Their indifference to the Terai’s pathological reputation might be

³⁷ These three popular hill stations are located in the our Himalayan of Himachal Pradesh, the Nilgiri hills of Tamil Nadu and the central highlands of Ceylon (Sri Lanka), respectively.

considered a mindscape of European travel in India; from the fleeting vantage of wooden seats on a whimsical railway, this 'fever district' could be a space of leisure and comfort.

Mechanical ascent

Since Alexander von Humboldt's geophysical profiles, such as the 'Physical Tableau of the Andes', the tropics have possessed a direct or latent verticality. The diversity of "wild and gigantic nature" located at the equator made it a privileged place to study the earth because a scientist could observe the gamut of environmental processes (Humboldt, quoted in Pratt, 1992, 109). Pratt argues that Humboldt, particularly in his 1849 *Views of Nature*, reduced South America to 'pure nature' by repetition of an "iconic triad": peaks, plains and jungle (1992, 123). Edwin Church and others of the Hudson River school who followed in his South American footsteps echoed Humboldt's scientific profiles and literary tropes by painting, on huge canvasses, snow-capped summits looming above lush forests. That India possessed the highest mountains on earth and over 200 quasi-temperate hill stations both challenged and affirmed its tropical reputation. Pines, peaks and 'European' plants proved geographical diversity. But that European 'constitutions' required respite at the rim of a torrid core confirmed India's tropical character, and hazard.

Ascent and India's dualistic tropicality defined the DHR journey. In just under 50 miles it climbed over 7000 feet, hoisting travellers out of the subtropical plains and depositing them on a temperate mountain ridge. Most welcomed the cooler climate. As the viceroy's wife, Lady Lytton, exclaimed, 'the

engine puffed us gaily, up, up, up, to fresher air' (Diary entry 4 March 1880, quoted in Martin, 2005, 58). The DHR Co. guidebook advised travellers "to put on extra clothing for the upward trip, and to have an overcoat or extra wrap handy, so as to guard against the comparatively great changes of temperature" (1896, 13). Passengers felt the breeze, then colder winds and sometimes rain, or even snow in winter. It was common to enter clouds by Sonada station (6500 feet) and spend the final hour in a damp, fleecy mist. In December and January some passengers chose to disembark at Ghum station, the line's apex at 7400 feet, and walk the remaining four miles to Darjeeling to warm up. Perhaps the most notable register of vertical transition was barometric: passengers' ears 'popped'. Climbing above Kurseong station (4561 feet) Waddell "experienced one of the effects of this rapid ascent by a slight explosion in the ear, followed by the instant relief of a feeling of tension in the temples" (1900, 24). Not until the advent of commercial air travel would passengers commonly feel atmospheric pressure change or pass through clouds *en route*.

The DHR's route added immersion to this multi-sensory encounter. The foothill gradients began in earnest after the Terai. While the "pigmy locomotive" climbed quickly, it halted often, followed serpentine tracks and passed literally *through* its natural and cultural surroundings (Mattson, 1892, 232). During the first hours of Terai forests, below approximately 2000 feet, it climbed a "track cut in the dense vegetation of the foothills, a mere rift half buried in the shade of the primaeval tropical forest" (Freshfield, 1903, 31). This immersion and propinquity continued higher up. Near Kurseong, wrote a local historian, "ferns, stagmoss and lichen may be gathered by stretching out the hand" (Dozey, 1922, 17). In addition to skirting trunks and epiphytes, the carriages came within inches of homes, vehicles, market stalls and locals,

adding to the rhythm of village life. At Tung, Sonada and Ghum stations the DHR effectively came to a halt in the village street. Indeed for approximately four fifths of the journey the DHR followed the road, adjoining vehicular and foot traffic (see Figure 12).

The thirsty steam engines ‘puffed and sputtered’ uphill at a modest 10 miles per hour and required water replenishment breaks, in addition to station stops (Mattson, 1892, 233). Curtis wrote that this “baby carriage on wheels ... crawls up the foothills”, permitting plenty of time to look about, and added that “if a passenger gets impatient or is in a hurry he can jump out of the car and walk ahead” (1905, 413). Many did. At station or water halts passengers alighted and ambled into the forest, picked flowers, listened to birds and took photographs. The DHR’s gentle pace permitted acquaintance with the nearby woods and prompted idle contemplation. George Mallory, on his way to the 1921 Everest mission, delighted in “the incredible touching & mysterious beauty” of “the forest itself” as he strode ahead along the tracks (Mallory papers, 17 May 1921). The DHR thus contrasts with conventional railways and writing thereof, including this section so far. Schivelbusch’s (1896) assertion that railroad perception no longer belonged to the same space as the perceived object or Larsen’s (2001, 83) discussion of the anti-Romantic “excessive velocity” and “rational slicing through the landscape on level, straight tracks” describe different experiences. Rather, the DHR’s slow speed, immersive pathway and unenclosed structure placed passengers beside – or even *inside* – the track-side milieux. Further, its unhurried, hill-climbing pace paradoxically endorsed John Ruskin’s railway condemnation that “[a]ll travelling becomes dull in exact proportion to its rapidity” (Quoted in Schivelbusch, 1986, 50). The tiny, leisurely train stimulated observation, amusement and reflection. It came perhaps as close as a railway could to *flânerie*.

Passengers on the hill railway from Colombo to Kandy (Ceyon) likewise recounted that when the gradient ramped up and the pace “reduced to about eight miles an hour” passengers could “enjoy the panorama that unfolds itself as [one] moved upward in winding and intricate course”, such as waterfalls which “are revealed up the glens as the train climbs slowly by” (Cave, 1900, 49; see also Ballou, 1894, 215). Like other trains, motion activated a scenic flow by unfurling and occluding surroundings. Unlike conventional railways, the DHR (and other Indian hill railways) did so at a comfortable, enticing rate.

As the DHR continued upwards, track-side flora transformed along with the climate. In his *Picturesque India*, Caine cataloged the altitude-specific vertical sequence from tropical to temperate species for would-be travellers. He noted, moreover, that “As the train ascends, the jungle gives place to forest” (Caine 1891, 347). This enduring discursive division between tropical and temperate nature was not cut and dry. South-facing slopes supported banana and other tropical species to the altitude of Darjeeling (6800 feet). The DHR Co. guidebook recorded, for example, that though the

tree-ferns with their feathery fronds still suggest the tropics ... the
bramble and raspberry on the banks, the maple, chestnut, pear,
cherry, willow, and other temperate trees on the hill-sides and in
the gorges strike a familiar note (1896, 29)

For many passengers the entry to a space of oaks, pines and bramble visually confirmed the entry to a temperate, familiar and healthful environment. Nineteenth-century medical analogies likened white Europeans to frail ‘exotics’ apt to wilt in the Indian heat (Arnold 1998, 5; Harrison, 1999). The flour-

ishing 'European' flora thus constituted a optimistic sight for travellers arriving after months in the lowlands. The approach to Darjeeling concluded the metamorphosis. Passengers steamed into "a world as different from that which one has left behind in the morning as Scotland is from the Sahara" (Ronaldshay 1923, 13).

In addition to climate and flora, the hill-station terminus finalised the revolution of topography, ethnicities and architecture which had commenced at Siliguri:

The first impression that the traveller fresh from the lower world receives on his arrival at Darjiling is the shock of entire novelty, the consciousness of having entered a new country, and fallen among another branch of the human race. India with its climate, its scenery, its architecture, and its sad, limp inhabitants, is lost to view. Yesterday was spent in rushing across the interminable plains of Bengal, among rice-fields, pools full of water-lilies, and high-roofed wooden dwellings raised on piles. To-day no natural level large enough to build a house on is in sight. The near landscape is crumpled into spurs and chines, a maze of gigantic ridges and furrows. Its features are subalpine, akin to those of the Italian Alps; the climate is Scottish, that of the Western Highlands, when the weather is soft; the architecture – well, let us say, the suburbanesque variety of Early Victorian modified by local conditions (Freshfield, 1903, 32)

Such interpretations of the tropical-temperate divide translated natural transformation into an encompassing hierarchy which paralleled a vertical and colonial bifurcation of India – lowland and highland, pathological and salubrious, benighted and civilised – and placed the temperate latter apart from a superior to the tropical former (Gregory, 2001). These supposedly discrete zones, moreover, reflected climates, geologies, landscapes, nations, races and 'worlds' (Arnold, 1996, 142-60). Freshfield's shock, however, seemed to de-

rive as much from the swift transition as from aesthetic, environmental or cultural contrast. Contemporary travellers might have voyaged three weeks home by steamship to witness an equivalent transformation.

Vehicular choreography of landscape

Scholarly work on the experience of train travel implicitly or explicitly posits that a railway moves along raised level tracks and that the surrounding terrain is predominantly open, affording views out and across. The DHR amplified and contorted these assumptions. It bore through forests and scaled mountains, mixing passengers into a dynamic series of surroundings. The train's motion 'choreographed' the landscape, alternately folding the observers' perceiving body into the terrain and then opening up yawning prospects (e.g. Schivelbusch, 1986). Above Kurseong (4800 feet) where tea gardens began, the carriages alternately submerged into thick, shaded forest and then emerged into patches of sunshine, sloped fields and mountain vistas. "At every turn fresh beauty reveals itself", gushed one guidebook (Caine, 1892, 347). Above 3000 feet and following a ridge, views expanded to a colossal scale. Passengers looked up tens of thousands of feet to the perpetual snows on Himalayan summits and down across the hazy plains. The DHR Co. handbook advertised views of up to 130 miles in clear weather (1896, 27). The sky, not only above but also around and below, mingled clouds, rarified air and haze into the scenery. "During the rains fleecy, white mists rise out of [the] ravines and are made resplendent by the rays of the sun", described one passenger (Caine 1891, 17). Views were as much *through* and *of* a shifting atmospheric medium as *at* a terrestrial surface (Ingold, 2005). In addition to a broad mobile viewpoint, the DHR also produced what might be termed

‘tunnel vision’. The absence of walls permitted passengers to see *forward* and *through* the carriages as the train slipped between trees and swept along cliff-side curves. The winding procession of carriages ahead mingled with the view as passengers’ ‘chasing’ perspectives followed. Waddell, on his way to the high Himalaya, captured the dynamism, dimensionality and metamorphosis of this landscape experience:

The twisting train curved in and out of shaggy ravines, carrying us through a swift succession of ever-changing scenery. We catch glimpses now of the blue hills and curling clouds above us, and now of the rich green masses of the woods and gorges through which we were passing, or again of the fast dwindling dusty plains below, which stretched out to the far-off horizon like a great dark restful sea. ... The landscape has hitherto presented the appearance of the truly tropical evergreen forest with its rank growth. ... Now, however, the forest began rapidly to change its character. The undergrowth, which was almost a forest in itself, thinned perceptibly, and the landscape got more smiling (1900, 14)

The preceding discussion and above quote suggest that, as John Wylie (2002, 2006) has argued, the experience of looking at landscape is immanent, processual and integrated with the perceiving body. However, the case of the DHR calls attention to the problematic notion of ‘pure’ relations between person and landscape (Michael, 2000). Wylie’s (2002, 2006, 2007) phenomenological accounts, following the ontological reformulations of Tim Ingold (1993) and Maurice Merleau-Ponty (2013), posit a seamless coupling of body and surroundings which neglect the myriad forms of mundane and ‘epochal’ technologies with and through which people experience the landscape (Macnaghten and Urry, 1998; Michael, 2000). Whether simple and ubiquitous or sophisticated and exceptional, devices afford, mediate, interfere with and stabilise person-landscape relations. They are the means by which people ac-

cess their surroundings, physically and representationally (Michael, 2000). Onboard the DHR, observing the landscapes was 'a seeing-with' to which mechanical motion and material structure actively contributed (Wylie, 2006, 243). The train fused with the passenger's body, facilitating and imposing upon their gaze. The carriages served as mobile platforms for a succession of dynamic views along an imposing landscape corridor. Velocity allowed passengers to witness the 'rhythms' of terrain as it flowed by (e.g. Larsen, 2001). The spatio-temporal nature of the journey – approximately 50 miles and 7000 feet in 7 hours – allowed passengers to sense the scale, progression and diversity of the Darjeeling region as a whole. The train's speed and material configuration also imposed upon the viewer, arranging and delimiting certain visual parameters. The DHR's structure, seating positions, route and direction, as well as fellow passengers' bodies, formed the visible sphere. The train moved and halted according to its own schedule and mechanical requirements. Passengers looked *from* and *through* this mobile arrangement.

What they saw was not just any landscape: it was fabled, gargantuan topography. The Himalaya had long impressed Europeans, eliciting aesthetic responses of the romantic, grand and sublime (Archer, 1880, 1989; Kennedy, 1996). The weaving, inclined track and moving carriages of the DHR mechanically accentuated the drama of embodied encounter. As it gained elevation the DHR became akin to a circus ride. The carriages – 'four-wheeled bogies' – were constructed with a short wheel-base and radial axles to handle the numerous tight corners, "for the line twists and turns like a snake, and the curves are so sharp that the little train is in the shape of the letter S for two-thirds of the journey" (Caine, 1891, 346). The two-foot width of the tracks amplified lateral motion during curves, increasing centrifugal force. In addition, the carriages were nearly seven feet wide. The resulting 'overhang'

exaggerated the sense of body-to-edge proximity, creating the sensation that the rails were clinging to the precipice, and the train teetering over the edge (DHR Co., 1896). The DHR's steep gradient had forced engineers to concoct novel solutions. They created what became the railway's signature: zigzags and loops. Both added unorthodox movements for a railway. At zigzags, the train halted, reversed and then continued along an elevated parallel set of tracks. Loops were more dramatic. At such points the DHR twisted around tight curves (as little as 59 foot radii), permitting views back upon the train and producing a sweeping aerial double-take of the landscape (Figure 9). During loops and sharp corners centrifugal force pulled passengers out towards the hill or cliff-side. Managing agents constructed barriers on particularly sheer corners and guidebooks recommended that those prone to 'giddiness' sit on the right (Dozey, 1922, 14). One passenger was relieved that the ride was "not nearly as bad" as he had been told because at "many of the most dangerous places there is a substantial parapet, and trees and shrubs cover the sides of the steep hills, so, that you are not sensible of the sheer precipice" (Baxter, 1882, 47).



Figure 9: “The Loop, Agony Point, Darjeeling” by Bourne and Sheperd Photography (c1885). From the British Library Asian and African Studies collection.

By flowing passengers through ever-changing, grand and varied scenery and swinging them around the cliffs-edges the DHR intensified the thrill and magnificence of the Himalaya. By the early twentieth-century lofty alpine prospects were established paragons of itinerant Victorian achievement (Pratt, 1992). On the DHR travellers accelerated mountain landscapes through motion, risk and mechanized participation. Controlled doses of danger and bodily involvement permitted the formation of an intrepid spirit. At the same time, travellers displayed sophistication and taste through consumption of exalted landscape scenery (Andrews, 1990). Like paragliding and bungee-jumping a century later, DHR passengers actively engaged, plunged into and ‘felt’ the landscape as it rushed toward and swirled around them (Bell, 2001).

In orchestrating the appearance and progression of Himalayan topography the DHR functioned as what might be called a 'landscape machine'. Physically, the moving carriages physically afforded – and ushered – perception along a mountainous corridor. Discursively, the DHR Co. and other guidebooks also discursively structured the landscape encounter. They suggested an itemised list of landmarks, directing passengers' eyes to a sequence of pre-established features for each section of the journey (Caine, 1891, 345-48; DHR Co., 1896, 15-36) Thus for many informed riders, observing the passing prospects was not so much an open, spontaneous 'looking at' but a more active and directed 'looking for' particular sights within dynamic space-time segments (c.f. Bissell, 2009, 50). The DHR itself became a notable visual object on tight curves, mingling with the foreground of the colossal scenery. Photographs and illustrations of the DHR captured its diminutive carriages steaming around the iconic cliff-side loops, flanked by lush vegetation and backed by a yawning chasm (Figure 9). Today these constitute the bulk of sepia-toned archival imagery. For turn of the century travellers, these images would have evoked what David Nye has called the 'technological sublime': a complimentary mix of dramatic scenery and industrial engineering which simultaneously exalts nature's might and the human ingenuity which domesticates it (1996).

That the British could and did construct a railway into the Himalaya contributed to the colonial ethos of beneficent 'improvement' and displayed their civilizational stature (Adas, 1990; Drayton, 2000). Thus to ride as a passenger helped to confirm British, European and American identities – in this colonial case, as white, Western and modern. Jan Morris has described how guidebook maps in colonial India delineated 'native' and British space as separate and contrasting (Morris, 1973, 138-39). Location, cartographically inscribed,

helped to authorize identities of colonizer and colonized. The same can be said of mobility (Cresswell, 2006). How one moved, by what means one travelled, confirmed where one belonged, and thus *who* one was – and who one was not. Riding in the DHR, Western passengers transitioned through yet remained apart from India, and thereby confirmed their distinct subjectivity.

Social carriage space

Passengers onboard experienced not only the natural environments outside their moving carriages but also the human 'environment' inside. The relatively compact yet socially open spaces of stations, platforms and carriages inflected Westerner-Indian social relations. In this section I want to examine how late nineteenth century British notions of racial and cultural superiority shaped British and other Western passengers' experiences of the semi-public spaces of the Indian railways. Then, I want to compare the differences in Calcutta-Darjeeling journey onboard experiences among travellers: between British and Americans and between Westerners and Indians.

I opened this Part with statistics regarding the significance of Indian railways to Indian history and travel. Operational route miles grew from 838 miles in 1860 to 23,672 in 1900 (the world's fourth largest and Asia's largest network) (Kerr, 2005, 1). These expanding lines carried over 30,000,000 passengers in 1883, increasing to almost 100,000,000 passengers in 1903, and then to over 250,000,000 by 1923 (ibid, 4). While Indian Railways' did not keep records of how many of these passengers were Indian or foreign, associated records suggest that Indians comprised the vast majority. For example, of the 183,211, 388,096 and 727,191 Indian Railways employees in 1883, 1903 and 1923, 'Europeans' (mainly British) made up 2.2%, 1.5% and 0.9% (ibid, 4). Over the period 1867-68, 95% of the 13,746,000 passengers travelled third class (Lovett, 1964, 344); British and other Western passengers tended to (as I will discuss below) travel first or second (intermediate) class, suggesting that they amounted to approximately 5% of overall passengers. And anecdotally,

travel narratives and fiction across the late nineteenth-century depict the overwhelming numbers of Indians on platforms and in (mostly third class) carriages. Thus we can infer that Western passengers encountered mostly Indians in and around the spaces of the Calcutta-Darjeeling journey.

Yet the Calcutta-Darjeeling journey accounts I have investigated say little about social relations and nearly nothing about what might be termed the railway relations between European travellers and local Indians. I believe that this is an archival issue: Western passengers seldom recorded – and even less frequently published – behaviour which might negatively impact their reputation (Richards, 1993). In order to understand something of the social relations onboard the Calcutta-Darjeeling journey requires that the available archive be expanded. I have taken three steps. First, I drew upon a range of European and American recorded experiences from railways around ‘British India’. Second, I studied handbooks for travellers and residents, in particular Hull and Mair’s (1878) *The European in India; or, Anglo-Indian’s Vade Mecum*, to analyse how Westerners were instructed to handle railway travel in India and the social intercourse it induced. Third, I examined photographs and engravings to tease out contextual details not present in published or private accounts.

To discuss the specific manifestations of onboard railway social relations requires broader contextualisation of quotidian British colonialist (sought) norms of dignity and authority. Bearing this and archival issues in mind, this section proceeds as follows. First, I describe how late nineteenth century British colonial attitudes towards India and Indians led Britons to comport themselves in a manner that Elizabeth Collingham has described as ‘rule by prestige’ (2001, 143). I then examine how beliefs in European racial superior-

ity over and cultural incompatibility with Indian peoples encouraged British and other Western travellers to segregate themselves in the confined and semi-public social spaces of the railway. I then examine how ideas of prestige and segregation led to tension, conflict and violence, contradicting the British colonial ethos of stewardship and progress. Finally, I return to the Calcutta-Darjeeling journey to examine how the material and social particularities of the DHR carriages catered to Western passengers and describe some of the differences in onboard experience between different groups of passengers.

Colonial prestige and railway social space

In the late eighteenth and early nineteenth centuries British colonialists in India emulated Mughal nobility in order to legitimise their rule (Cohn, 2001, 1996). From the mid to late nineteenth century, however, the British progressively distanced themselves from Indian cultures and customs. Social, political, military, technological and intellectual factors all contributed. The transition from Company to Crown rule brought increased oversight from London. The 1857 'Mutiny' reminded colonialists of their precarious and unwelcome political position. The proliferation of steamships and the opening of the Suez canal, as well as the expansion of the Indian railways allowed British residents to transit to and within India with relative speed and ease, increasing the amount of time Europeans could spend amongst one another. Evolving medical theories increasingly framed white European racially unsuited to the 'tropical' Indian environment. And racially-based medical theory increasingly understood Europeans as physically and morally superior to Indians (vulnerable though they might be to the Indian climate). For Collingham, this progressive cultural detachment revealed itself in trans-

formations of social comportment and bodily appearance: from late eighteenth and early nineteenth-century East India Company 'nabob', who dressed in Indian garb, took Indian mistresses, smoked hookahs and learned Indian languages, to the mid and late nineteenth century 'sahib', the sober, bureaucratic colonial officials who wore flannel suits and sola topis, brought wives from home, ate tinned preserves and generally shunned Indian manners (2001, 14-36, 50-79).

At the level of official display, the British government replaced Mughal-style political patronage with a more distanced, European ceremonial relationships which set the British above and apart from local nobility (Cohn, 1996). At the level of daily interaction, the British official, civil servant or soldier represented the nation and Crown rule, toiling for the sake of Queen and country in an uncomfortable, alien land. The sahib of late nineteenth century India was meant to embody British virtues and exercise colonial authority in workaday life. The British woman, or memsahib, likewise maintained her and her family's virtue by safeguarding a hygienic, orderly domestic sphere (e.g. Steel, 1888). This necessary combination of honour and authority required British residents in India to maintain that "credible performance of haughtiness and mastery" necessary to sustain command (Scott, 1990, 11). Collingham, following William Hoey's (1913) expression, terms this performance 'prestige' (2001, 117-48). By the turn of the nineteenth century British residents were expected to exhibit an almost scripted posture of public behaviour. Reflecting on his early days in Ceylon, Leonard Woolf, husband of Virginia, noted the 'theatricality' of how he and his fellow civil servants were "always ... playing a part, acting upon ... the stage [of] imperialism" (Quoted in Hillier, 1986). New arrivals to India found they could simply adopt an established character, sustained by the props of their

official rank: white skin, European clothing and a commanding manner. John Beames, a Bengal civil servant, recorded in his memoirs the process of incorporating himself into the role of the sahib. On his first posting he arrived by the roadside at four in the morning. The policeman on duty gave a perfunctory salute but no hel “The position was new to me, but I had noted the respect paid to Elliot (a civilian friend) ... and knew that I was entitled to the same here. So I announced myself in Hindustani as the new Assistant Sahib, and sternly demanded that someone should go with me to show me the way. This at once produced the effect desired” (Beames, 1961, 94-95). By stepping into the authoritative air and voice of the sahib, Beames took on the prestige which induced Indian deference.

Philip Mason, a civil service administrator, found it difficult “to convey the authoritarian atmosphere of India, the expectation that anyone would do whatever you told him” (Mason, 1978, 97). Superiority, furthermore, served as a mantle of defense. In his *Going East* handbook, William Hoey, civil servant in India and then lecturer in Hindustani at Oxford, advised Europeans not to pack a revolver; “If an Oriental wishes to kill you, he can do so easily when you are helpless. Prestige is the European’s safeguard in India” (1913, 22). Prestige, as constructed in day to day, face to face interactions, relied upon deference from Indians. The British imposed subservient ‘Indian’ codes of behaviour on Indians. Cohn notes that once “the British had defined something as an Indian custom, or traditional dress, or the proper form of salutation, any deviation from it was defined as rebellion and an act to be punished” (Cohn, 1996, 347-48). In 1871 two schoolboys in Assam were expelled for failing to salute a local Commissioner, the reports of which elicited a round of vexed letters to Calcutta’s daily *The Englishman* lamenting the lack of gentlemanly etiquette from Indians (Collingham, 2001, 143). The affair be-

trays what Peter Gray (1995, 86) argues was an obsessive fear of insolence by British colonialists. This sensitivity to any challenge to European dignity and authority, as well as the distanced official and informal relations, set the tone for social interactions between European and Indians in the spaces of the Indian railways.

In the late nineteenth and early twentieth centuries European and American visitors to India inhabited the physical infrastructures and social norms created by British colonialism. Their Caucasian physical features, white skin and European dress meant they resembled British colonialists. For soon to be colonial residents and tourists alike, habituation to Indian travel began on the Pacific & Oriental voyage out, where newcomers to India gathered advice from veterans regarding the kit, diet, seasons, servants and so on (Allen, 1977, 21). Upon arrival at Bombay, Madras or Calcutta, most travellers acquired one a servant to act as guide, translator and porter – Murray and Cook handbooks provided cursory information regarding pay, duties, expectations and possible conflicts (e.g. Murray, 1911; Cook, 1912). Around India they relied on European hotels and booking agencies to purchase their railway tickets and arrange accommodation according to common itineraries, not unlike contemporary package tours. The railway largely structured tours; in fact, from the late nineteenth century guidebook itineraries followed the principle trunk lines (e.g. Hull and Mair, 1871; Caine, 1891; Murray, 1911, 1901, 1898; Cook, 1912). In effect, British, continental European and American passengers stepped into a ready made social rank and travellers' milieu and shuttled between destinations and facilities which catered to their needs. By the time most Western travellers entered a railway carriage, they possessed a good idea of how to comport themselves amongst Indians and what kind of behaviour to expect in return.

Class and incompatibility

The stations, platforms and carriages of the Indian railways were neither not hermetically sealed. As in mid nineteenth-century Britain, the spaces of the railway were zones of public mixing, and thus of novel and fraught social relations (Freeman, 1999; Löfgren, 2008; Schivelbusch, 1986). Meanwhile, the British took pride in the Indian railway system as a symbol and engine of modernisation in India (Kerr, 2005, 1997). The railway carriage thus constituted a semi-public site where British passengers tended to affirm their status as the ruling class, and one where the tensions and contradictions of the ideology of superiority might come to the fore. Europeans who travelled in first-class moved through India in a pocket of comfort: each carriage had its own bathroom and the luxuriousness tended to exceed the more functional train interiors Britons were accustomed to at home (Satow and Desmond, 1980, 36). This demonstrates the importance imperialism endowed on what in Britain were distinctions of social class. While the upper-middle class British might normally choose to economise on travel at home, Europeans who travelled in less than comfort and dignity were seen as poor representatives of 'their side'. Edmond Cox was a tea planter come classics teachers at St. Paul's boarding school in Kurseong (two stops before Darjeeling station). On his first Indian railway ride he travelled 'intermediate' (second) class:

My brother, when I arrived ... the next morning, was horror-struck at seeing me in that class. It was impressed upon me that a European in India is a "sahib," and a member of the ruling race, and must not lower his position by travelling in anything less than second-class, and that it is only permissible to take a second-class ticket when your financial position absolutely prohibits the luxury of a first (Cox, 1909, 11)

In 1870, Edmond Hull, coffee entrepreneur in Ceylon, and Ranald Mair, of the Indian Medical Service, published *The European in India; or, Anglo-Indian's Vade-Mecum: A Handbook of Useful and Practical Information for Those Proceeding to Or Residing in the East Indies, Relating to Outfits, Routes, Time for Departure, Indian Climate and Seasons, Housekeeping, Servants, Etc., Etc., Also an Account of Anglo-Indian Social Customs and Native Character*. As its title suggests, this handbook combined general advice, medical guidelines and tips for social comportment. Hull wrote the general advice sections while Mair provided medical counsel. In Chapter 10, 'Travelling', Hull stated the railway matter plainly: "All Europeans, excepting soldiers, artisans, etc., are expected to travel First Class" (Hull and Mair, 1870, 141). A First Class fair, however, generally cost ten times that of third class (Allen, 1977, 21). Hull acknowledged that while "the difference between the first and the other class fares is very heavy", it forced

Europeans of the better class, who wish to avoid contact with natives of the lower orders, but who otherwise might be tempted by the lowness of the fare to go second-class; and also to deter natives and poor Europeans from doing so (Hull and Mair, 1870, 141)

"This intention", Hull conceded, was not always fulfilled: many "respectable" British and Europeans, particularly families, could not afford the higher fares, while others considered the price difference between classes disproportionate and travelled Second Class "on principal". Acknowledging the delicate nature of the decision facing European travellers, Hull condensed his experience of both classes into a graded and gendered prescription:

(1) A gentleman travelling alone or with other gentlemen, by day, and in the cool weather, to whom the saving to be effected is an object, may very well travel Second Class, provided there is not likely to be an unusual crowd of natives travelling about. (2) Ladies and gentlemen forming a party sufficiently large to occupy the whole or the greater part of a compartment, also by day, may also go second-class without much discomfort. (3) But, as a general rule, ladies in India ought always to travel first-class; also gentlemen by night; and (4) all Europeans, at all times when they can afford to do so (ibid, 142)

If this did not dissuade would-be travellers from travelling Second Class, Hull told a harrowing tale of personal experience followed by a reasoned account of why European and Indians were fundamentally incompatible carriage companions (ibid, 143-44). The abridged story goes like this. In “a moment of rash economy” Hull purchased a Second Class ticket for an overnight journey during a religious festival, at a time when the railway provided no nighttime third-class carriages. He laid out a rug and cushions in an empty car and laid down for the ride. But at each succeeding station “fresh native passengers dropped in, with bundles, baskets, boxes, bunches of plantains, etc., ... till cushions, rugs, etc., had to be bundled up” and he was sat alongside locals on fully occupied benches. While Hull professed “no instinctive repugnance to Hindus or Asiatics in general” he admitted that his “cosmopolitan leanings were put to a severe trial upon this occasion”, and invoked physical incompatibility to explain the dilemma which faced European passengers:

Many of the natives are addicted to practices which make them anything but agreeable companions de voyage in close quarters. In the first place, they lubricate the body with oil, sometime coconut, but often castor or margosa oil; the two latter kinds having a most foetid and, to a European, a most disgusting and nauseating smell. Secondly, being often fat, the natives perspire very

freely, which they can hardly be blamed for, but which intensifies the effect of the anointment (ibid, 144)

Furthermore, Indians possessed the habit, “to which the European never becomes fully reconciled”, of chewing betel nut that caused “a copious red expectoration” and stained their teeth “every shade from crimson to jet black”. From a “European point of view”, this was ‘hideous and revolting’. Worst of all was their “habit of eructating on all occasions, without the least attempt at restraint”. Finally, he concluded his tale of warning by recalling the Indian climate:

The reader will now, therefore, please imagine himself in a railway carriage – the thermometer meanwhile at 80° – containing some forty or fifty fellow-beings, all more or less characterized by the above peculiarities, and he will probably resolve never to travel second-class in India. (ibid, 144)

In short, based on body and behaviour, white Europeans and local Indians were incompatible; the relatively confined railway carriage engendered fraught relations. Popular guidebooks by John Murray and Thomas Cook endorsed the Hull's advice. They provided fare, scheduling and other details for first and Second Class only, leaving out mention of third class (e.g. Murray 1898, 1901, 1911; Cook 1912; Caine, 1891). Cook's 1912 guide, furthermore, gave the number of individual fares required to reserve an entire First or Second Class carriage, suggesting it was not uncommon for travellers to pay a premium for privacy. This premium added to 30-40 times the price of a single Third Class fair (Cook, 1912, 101).

The reproof Edmond Cox received from his brother about riding First Class to uphold the European's status betrays the drawbacks and contradictions in

the supposed civilising process of colonialism. From Governor-General Dalhousie on, British leaders and laymen in India believed the railway would stimulate social progress, such as the diminishment or even dissolution of Hindu caste system (Headrick, 1981). The railway, however, introduced more democratisation than many British passengers desired. Exorbitant fair differences provided 'natural' or 'fair' means to effect exclusion. And options to book an entire carriage allowed those of means to purchase their separation. Yet the carriages, stations, platforms and waiting rooms were ultimately semi-public spaces and thus remained holes in wall of social segregation normally maintained by 'European quarters', cantonments and hill stations. Gender, as Hull's graded prescription indicated, heightened European sensitivity to railway spaces. In the early day's of Bengal's railways, one columnist for Calcutta's *The Englishman* voiced concern over ladies "being jostled by half-naked coolies" on a platform of Howrah station while another complained that his female travelling companions had to "endure the impudent stare of the perspiring coolies who thronged upon us" (12 March 1870, 2, quoted in Collingham, 2001, 146). As time passed, Indian passengers attuned to European sensibilities. Three decades on a female traveller recounted that while "[f]irst, second, or third class was all the same to country people, once they saw a Madam Sahib seated, they knew the compartment was not for them, and though some opened the door, they retreated directly they caught sight of me" (Dyson, 1913, 92).

George Trevelyan, British statesman, author and civil servant in India for three years, extended Hull's logic and common sentiment by suggesting that "the incompatibility of manners that English ladies could not use the railway at all if native gentlemen were in the constant habit of travelling in the same compartment" (1977, 28). Such opinions and advice disclose a form of racism

couched in the language of a physical repulsion to difference. It was this aversion that caused another civil servant to “look upon racial incompatibility as something chemical or psychological, apart from reason, which is only called up among the supports of our self-respect in a losing battle” (Quoted in Parry, 1998, 133). Such seemingly irreconcilable differences saddened Philip Mason when he arrived in India. On the train to his first posting as Assistant Magistrate, Philip conversed happily with an Indian newspaper editor. But when this man departed,

his hair left on the window-pane where he had leaned a thick smear of of some greasy substance, at which I looked with distaste, reflecting how often it is little things that keep people apart (1978, 167)

Indians were certainly disgusted by some European bodily traits and behaviours. Macleod, in two weeks touring India, did not see an Indian gentlemen travelling in a carriage with Europeans, but believed this circumstance arose “not so much from any repugnance of race, as from customs and habits which make the native repugnant to the European, and the European equally repugnant to the native” (1870, 97). The power asymmetries of colonialism, however, meant that etiquette manuals advised Indians about how to accommodate European sensitivities and racism, rather than cataloging Europeans’ revolting peculiarities (e.g. Webb, 1915, 83-84).

Tensions and contradictions of railway segregation

As the Indian railway network spread, infrastructural means of segregation were established. Many of the larger towns had separate ‘city’ and ‘canton-

ment' stations, and Murray guidebooks instructed travellers to, "as a rule", book tickets to these latter (Murray, 1911, xxii). On some lines there were carriages reserved for Europeans only (Hardie, 1909, 97-104). Stations had separate dining rooms for Hindus, Muslims and Europeans, while water carriers provided different water to different passengers and trains were divided into first and Second Class 'mail' trains, which ran punctually, and frequently tardy third-class and goods trains (Collingham, 2001, 146-47).

J. Keir Hardie, Scottish socialist and first independent Labour Member of Parliament, was alarmed by the programme of segregation and onboard incidents that he witnessed in India. He titled one chapter of his travel narrative 'The Colour Line' and discussed several incidents of bigotry and discrimination – though he could have filled "a decent-sized volume with cases the reader would find hard to believe" (Hardie, 1909, 98). He noted the carriages for 'Europeans Only' and bathrooms "labelled 'European Gentlemen'; whilst away out at the end of the platform is a corrugated iron structure labelled 'Men'". Revealing his own class prejudices, Hardie deplored that "any poor scallawag in a white skin" was a 'European Gentleman', while educated, titled or even noble Indians were forced to use crowded communal facilities (1909, 97-98). Like many Europeans, Hardie found himself occasionally travelling in carriages with Indians. Once, when he entered a train at Madras he found "two Indian gentlemen":

One of them rose as I entered, and said: "Shall we move to another compartment, sir?" I stared at the man, and asked whether he had paid his fare. "Oh, yes," he replied; "but English gentlemen don't as a rule like to travel with natives." Now I knew that in parts of America the colour line was strictly drawn, but I was not prepared for this kind of thing in India. Here, be it remembered, is a people who have inherited a civilisation which was old ere the West had

begun to emerge from savagery. Those who travel first or second-class are mostly men with a university education, and speak English fluently. Some of them are wealthy, and many of them are of ancient lineage and noble descent. And yet, travelling on a Government railway in their own country, they are treated by the governing white caste much as they themselves treat the poor outcast pariahs (Hardie, 1909, 98)

Hardie's outspoken vignette contrasts against the many travel accounts which overlook onboard chauvinism. It also suggests that, though rarely recorded, official and informal instances of racism, segregation and mistreatment were not uncommon. Morsels of abuse turn up, however, in some accounts and in fiction, where personal reputation was not at stake. An Indian (Christian, Cambridge educated, knighted barrister) recounted to Hardie (1909, 100) how he and his son were called a 'black dogs' and expelled from a carriage by British passengers. Hardie pondered whether the racism he heard of and saw were part of a wider "estrangement between native and European" to which the railway contributed through increased mobility and thus reduced need for social bonds between British officials and local natives. Norman Macleod, an American traveller, witnessed a European merchant punch and kick a salaaming servant on a Delhi station platform. The assault drew blood and "a scream of agony" and yet "No one seemed to take the slightest notice" (1870, 184). Macleod believed to have witnessed the lingering tensions of a post-Mutiny colonial society. Yet the instance irked him so that he leaned out his carriage window and shouted "'You brute!' but the train moved off, and [his] voice was lost in the din. ... May such fellows be extirpated from the land!". Hannahsyde, the protagonist of a Rudyard Kipling short story, casually "abused the coolies with the luggage, and hustled the people on the platform" while seeing off a failed dalliance at Lucknow station (Kipling, 1889, 298). This contextual detail, trivial to the storyline,

suggests that European abuse of Indians in the public spaces of the railway was neither uncommon to perpetrate nor to read about.

Some European passengers removed fare-paying Indians from carriages by intimidation or force, others requested station-masters to remove them by authority (Morris, 1960, 205). In either case, it must have been a humiliating affair for the Indians. John Morris, an English soldier and mountaineer, wrote that even the most respectable of British civilians was guilty of such removals and intimidation (ibid, 205). In his military handbook *Notes for officers proceeding to India*, Moore informed would-be railway passengers that Indians were “fully entitled to travel in First Class carriages if they [paid] the fare”, that Europeans were “not entitled to demand to see their tickets”, and “In no case must violence be resorted to” (Moore and Molesworth, 1930, 43). The ominous final injunction suggests that European acts of force were more common than they were recorded.

At least part of the disapproval expressed by proud Britons, such as Hardie, or curious American tourists, such as Macleod, was that European bad manners and bigotry ran counter to the official ideology that British colonialism in general and the railway network in particular bestowed upon India progress, improvement and civilisation. John Chapman, promoter of the Great Indian Peninsular Railway, described in 1850 his “double hope of earning an honourable competency’ and imparting to ‘our fellow subjects in India, a participation in the advantages of the greatest invention of modern times” (Quoted in Macpherson, 1955, 182). Edward Davidson, a Bengal railway engineer and early historian of Indian railways, likewise stated in 1868 that the steam locomotive provided “more powerful agency than that of laws, roads, bridges, canals, or even education” and “with its advance was

overturning prejudices, uprooting habits, and changing customs” (Davidson 1868, 3).

In one sense, pronouncements of social change proved correct. Indians comprised the vast majority of passengers from the opening of the railways, using them for travel, migration and pilgrimage. Pessimistic predictions that Brahmins, Untouchables and other caste echelons would refuse to occupy the same carriage proved incorrect (though early train schedules included meal stops so passengers could alight to prepare and eat their food separately) (Headrick, 1981, 189-90). Ironically the railroads engendered a new outlet for caste distinctions; one based not on ancient religious sanctions but on colonial hierarchy. British and other Western passengers distinguished amongst themselves by class travelled and amongst Indians by vocation, education and command of English language and etiquette (Webb, 1915, 83-84). Cheap Indian labour, furthermore, enabled British firms to profit while the top jobs – station-masters, engineers, drivers and administrators – went largely to Britons until the mid twentieth century (Headrick, 1981, 190). And while railway companies tended to lose money on modest First Class fair revenues provided by predominantly European passengers, they recouped earnings on third-class carriages packed with poor Indians (*ibid*, 190). Historians Westwood and Headrick suggest that these glaring social and economic discrepancies did not coincidentally occur at the same time as growing anti-colonial nationalism (Headrick, 1981, 190; Westwood, 1975, 38-40).

From their arrival in the late sixteenth-century, Europeans lived *in* but largely *apart from* India. The British existed as a “society of sojourners” during the eighteenth and nineteenth centuries, though a minority of colonialists living ‘up-country’ integrated with the local community (Cohn, 1996, 9-11). Over the nineteenth century and particularly after the ‘Mutiny’, the British established numerous enclaves and spent much of their personal and professional lives in these sealed-off spheres of relative control and comfort. European cantonments and civil ‘stations’ were constructed at and distance, and upwind from, what was typically termed the ‘black town’, which Europeans entered to sight-see. “Few Europeans know anything of the native portion of great Indian cities”, noted an army surgeon, “although they may live for months and years in their vicinity” (Anon, 1854, 194). The 1911 Murray guidebook map for Lucknow depicted a clear contrast for travellers: the cantonment is a spacious grid of buildings and lawns while the city centre forms a crammed jumble of red patches (1911, 284). The hill station, finally, was the colonial enclave at its literal and figurative zenith: an elevated outpost of rule and replica of home in a European climate which looked symbolically over the populated plains below (Kennedy, 1996; Kenny, 1995).

That European travelled mainly First Class indicates how the mobile railway carriages of India, while officially public, nonetheless functioned as enclaves. The DHR, while highly permeable, illustrates some of the ways in which first and Second Class carriages functioned as semi-private social spheres. First, riding on the DHR temporarily separated passengers from the Indian surroundings. This separation involved physical and psychological factors. The structure and motion of the train shuttled passengers at a speed to conducive

to engagement with track-side surroundings yet provided enough perceived discontinuity that most forgot or ignored environmental peril, such as in the Terai. Passengers sat in a familiar material object – “ensconced in arm-chairs”, as Waddell (1900, 5) enthused – and means of transportation, one that symbolised European industrial modernity. Sharp & Stewart Co. of Glasgow provided the rolling stock which, though curiously small, embodied British manufacturing expertise.

A combination of formal political and economic forces from ‘above’ as well as informal practices from ‘below’ determine the social characteristics of space (Lefebvre, 1992). The DHR’s regulations, marketing and ticket prices set the official conditions. Advertising, guidebooks, ticketing and railway signage (including track-side elevation markers) were all in English. The DHR Co. administered the line according to British law and railway regulations. Riding without a ticket, boarding a moving train or other infractions were punished accordingly (DHR Co., 1896; Martin, 2000, 57-59).

The predominantly European and American ridership of First and Second Class carriages normalised onboard customs (Figure 11). Passengers observed the scenery, read, chatted, slept and snacked. At engine-cooling and station stops passengers alighted briefly to shoot photographs, pick flowers, observe the crew and buy souvenirs. The combination of this small semi-Western milieu and the purpose of the journey likely stimulated observation of landscape. Darjeeling and the Himalaya were quintessential scenery destinations (e.g. Caine, 1890; Murray, 1898, 1911; Dozey, 1922). Visitors hiked at dawn to witness ‘the roof of the world’ in limpid air, walked and trekked in the surrounding hills, visited tea-gardens and temples, sketched and painted, and used the town as a base for expeditions (Waddell, 1900; Freshfield, 1903;

Mallory, 1921). In addition, like the '*qui vive*' atmosphere of the approach to Siliguri, passengers knew of the immanent arrival and witnessed one another craning their necks, shooting photographs and pointing out views (Martin, 2000, 44-58).

Journey's activities were reinforced by food and drink. The trip had one stop for tea and coffee, and another for lunch halfway at the refreshments room of the Kurseong station hotel (DHR Co., 1896). Pre-ordered lunch or à la carte selection provided familiar fair. Passengers tucked into soup, sausages, fresh bread and even locally brewed beer before reboarding (Martin 2000, 38). Just because Western passengers travelled together did not mean they got along. Planters, nicknamed 'blue devils' and notorious for their coarse, hard-drinking demeanor, were known to disturb and play pranks on other passengers. Yet even such disturbances occurred in the English language and according to European norms (ibid, 38).

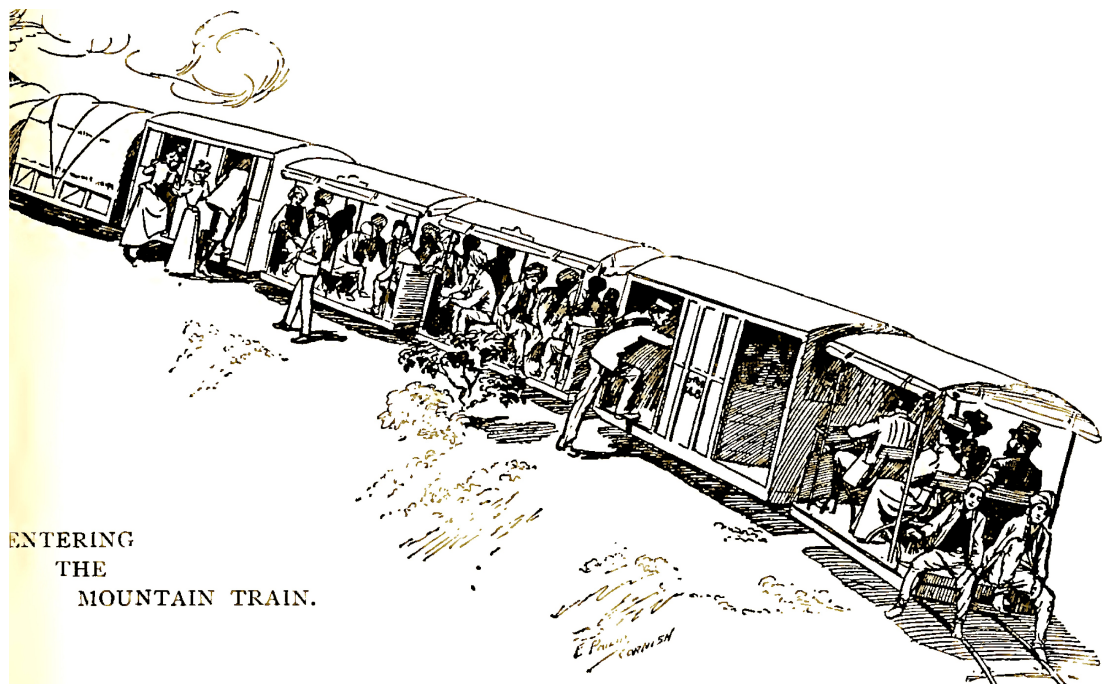


Figure 11: "Entering The Mountain Train" (Waddell, 1900, 5).

Such formal codes and informal practices produced what Petri Hottola has called metaspacial retreats: small zones within foreign space which increase the perceived control of the traveller in relation to the 'host' culture and environment (2005). In today's terms the DHR constituted a mobile tourist bubble; a semi-private sphere of temporary Western cultural domination in which travellers both took refuge from the strains of intercultural interaction while enjoying familiar language, food, company, laws and customs. Anxiety over translation, unwelcome consort, strange food or other cultural 'shocks' were put on hold. The DHR set passengers in familiar social surroundings and allowed comfortable gazing (or reading, sleeping, and so on) at their leisure.

While I examine European and American experiences of travel on the DHR railway journey it is necessary to consider how such experience differed amongst these passengers and between Westerners and Indians. The British were generally proud of the Indian railway network (Kerr, 2005) and British passengers onboard tended to praise railway's design, construction, convenience, comfort and scenery (e.g. Waddell, 1900; Freshfield, 1903; Hart, 1906). As Hart assessed, the ride was "a delight indeed":

The cooler air refreshes the jaded dweller in the sultry plains, and the glorious views fill the mind with a sense of the deepest satisfaction. The mere engineering of the line is a perpetual wonder, and altogether the journey is one of the utmost interest (1906, 102)

American passengers tended to take a more critical view. William Curtis (1905, 144), the American journalist, thought the Indian railways were "very primitive in their appointments" and "the tourist who has just arrived is apt to criticise and condemn [them] for the first few days" (1905, 144). He thought the Calcutta-Darjeeling "a hard journey, both going and coming" and got impatient that it took nearly 24 hours (ibid, 413). As for the DHR's scenery: "Englishmen who write books on India assert that it is that grandest railway journey in the world, but we can show them several quite as picturesque and attractive in our own beloved Rocky Mountains" (ibid, 414). Eliza Scidmore, an American writer, photographer and first female board member of the National Geographic Society, visited Darjeeling a few winters before Curtis. She noted that, in addition to patriotism, the hospitality received from fellow countrymen meant that the British traveller "sees and thinks differently from the other tourists" (1903, ii). On the DHR Scidmore found "the

same springless, cheerless, dusty railway cars as in southern India”, but with harder seats. Worse, she did not enjoy the relative cool of Himalayan air in the open carriages and wished for “one well-built and windowed trolley-car” so “that one might sit in comfort and enjoy the views that continually opened”. As she and her companions ascended, they “found the foolish little open tram-car anything but a rational conveyance for high mountain travel” (1903, 108-9).

While this section examines Western travel, Indians also used the DHR. Indeed from the late nineteenth-century onwards Indians comprised the majority of passengers on Indian railways, ironically troubling both British colonial efforts at segregation and their simultaneous praise for the railway’s democratising effects on Indian society (Collingham, 2001, 145-47). Especially from the 1920s onwards, Darjeeling attracted middle to upper class Indians, primarily from Calcutta (Gordon, 1990; Kennedy, 1996). They, too, enjoyed the region’s mountain scenery, cooler climate and rural tranquility. There exist, however, few records in English of Indian experiences of the journey, a fact which suggests, at the least, that they experienced railway journey differently.



Figure 12: “Sonada Forest Darjeeling” postcard by Das Studios (c1920).

From Western accounts and imagery of the DHR and Indian accounts of Darjeeling, however, a few general points can be surmised. First, the DHR was a quotidian and practical means of transport, especially for local merchants – unsurprising given the difficulty of transportation in the Himalaya. Prior to the railway, porters and ponies carried all freight on foot, requiring weeks to trek from various hamlets into the larger foothill villages and back (Deloche, 1993). The DHR placed expedient and economical haulage along what for centuries formed a thoroughfare for trade between Tibet and Sikkim and the Indian lowlands. Moreover, the migration to the Darjeeling district by Nepalis, Sikkimese, Bhutanese and Bengalis, as well as the growth of villages and tea plantations along the line, grew the regional economy and provided markets for goods at most stops (Martin, 2000). According to one career DHR employee, Banishdar Dikshit (2006, 3), locals riding in third class ‘used to travel in [a] great rush every day, attending market days at different places [along the line]’ (2006, 3). Images such as Figure 11, for example, suggest that

locals were as numerous onboard as British and other Western travellers. Here, two third class carriages (at middle) are filled with turban wearing men while bare foot adolescents sit at the rear of the train, Indians thus constituting more than half of visible passengers (which corroborates general Indian Railways statistics). This image contrasts with published and private travel accounts which overwhelmingly omit native passengers and social relations. Except for Scidmore's description of "a stumpy little Gurkha officer" and his bejewelled wife, none of the dozen published accounts I have read mention Indian passengers onboard the DHR (1903, 190). Significantly, in memoirs describing over thirty years on the line, Dikshit himself does not refer to riding the railway, though from context it is clear that he did so myriad times (2006). He discusses, rather, the railway's construction and maintenance, government funding and employee salaries, and his friends and co-workers. The DHR constituted not a novel or touristic experience but the hub of his vocational and social life.

Some locals appear to have used the DHR in a clandestine manner. Turn of the century imagery shows Indians riding on carriage roofs and hanging off the back railings (for example Figure 11). It is unlikely that engineers failed to notice all these covert passengers. It seems that locals gained usufructory rights of the DHR, likely based on social or economic ties. Finally, a c1920 postcard (Figure 12) shows locals sat alongside the line observing the train, suggesting that the novel machine and its foreign riders constituted notable or exotic sights. This reversal and reciprocity of 'gazing' at foreign difference indicates that Western passengers were not the only or most important source of observation in DHR mobile encounters.

Conclusion

The descent from Darjeeling brought travellers out of the temperate foothills and into the heat and level surfaces of lowland India. Ronaldshay, coasting toward the Terai forests, found himself,

amid the familiar surroundings of the plains once more. The sun blazed down with its accustomed warmth; the ground, where it was not cultivated, was covered with masses of sweet-smelling wild thyme; long lines of prim-looking tea bushes lay side by side. and away on the plain, some miles from the foot of the mountains, the smoke of a railway train rose lazily from the little station of Bannarhat. (1923, 247)

Most British passengers returned to Calcutta or on to 'up country' (rural) stations of home and work. 'Globe trotting' tourists left India via the port of Calcutta or continued their Indian travels south towards the peninsula or west along the Ganges. From 1898 to 1924 four other narrow-gauge mountain railways were opened, mostly serving British hill-stations and tea plantations, and all based significantly on the engineering examples of the DHR. Until the Second World War, these 'toy' trains continued to carry British colonialists, Western tourists and Indian visitors up to temperate climes and scenery.

In this chapter I have explored how the Calcutta-Darjeeling railway journey shaped European and American passengers' experiences of the Indian environment at the turn of the nineteenth-century. At the broadest level I have examined vehicular mediation of landscape: how travellers experienced India

from, through and in a moving train. Passengers aboard encountered the Bengal plains and Himalayan foothills via their trains' specific route, structure, speed and schedule. The enclosed structure, shading and ventilation of these trains mitigated the Indian climate, while the schedule and motion prompted a spatio-temporal pattern of 'landscape vigilance'; passengers were more likely to record the landscapes after departures and prior to arrivals (Bissell, 2009). The trains' motion merged with aesthetic norms. Mark Twain's description of Bengal encapsulated several of the effects of a Western, 'tropical' eye looking out from a moving EBSR carriage: visual, distanced, aesthetic and positive interpretation; the landscape seen and depicted *en masse* and described as a holistic scale; a roll call of iconic tropical vegetation; Indian rural peasantry depicted as subsidiary to natural objects and as anonymous 'silhouettes'; and descriptive prose which mimicked the tempo of passing landscape features. In other words, the moving train converted Western passengers' touristic gaze into a mobile travel glance (Larsen, 2001). Passengers witnessed a 'corridor' of Bengal as a series of visible items and amalgamated them into a more or less coherent 'picture' of Bengal (or India): flat, arid fields punctuated by lush tropical foliage and brown bodies. This fusion of Western 'ways of seeing' with (non-human) vehicular agency suggests that colonial, masculinist interpretations of landscape were less autonomous or masterful than some literary and postcolonialist scholarship argues (e.g. Bishop, 2001; Pratt, 1992).

The transfer to the Darjeeling Himalayan Railway altered this mobile glance. The DHR's 'Lilliputian', open carriages, narrow rails, slow pace and forested ridge-ascending route contrasted with the perceptual experiences of conventional railways. This toy railway ride had two main effects on passengers' experiences of the foothills: mitigation of 'dark' aspects of India's tropical

reputation and orchestration of the Himalayan scenery. The experiences of DHR passengers thus affirm and challenge the pathological nature of Indian tropicality posited by Arnold (1996, 2005), Kennedy (1990, 2006) and Harrison (1999). 'Tropical' India was different when we shift empirical and conceptual analysis from racialised medical discourses to hybrid, embodied encounter. Rather than anxiety over climatic peril or regional pestilence, European and American travellers onboard the DHR overwhelmingly recorded experiences characterised by repose, comfort and enjoyment. More broadly, the DHR indicates that the junctions of and transitions between tropical 'frontiers' suggests that the division between tropical and temperate 'worlds' could be tight, obscure and overlapping. DHR passengers ascended within a matter of hours from 'the tropics' to pine forests, bramble, snowy peaks and Swiss style bungalows. Historical studies of travel and tropicality have tended to study European encounters with tropical archetypes such as Brazil, Polynesia and the Caribbean (e.g. Arnold, 1996; Stepan, 2001; Driver and Martins, 2005; Thompson, 2007). Inquiry, which adheres to the tropical archetypes and the oppositions between tropical and temperate nature, may pass over the experiential and representational ambiguities and tensions between the two.

By hoisting passengers steadily up along a Himalayan ridge, the DHR ushered passengers through and past a series of huge, fabled and varied landscapes. By the early twentieth-century, the alpine prospect was a paragon of Victorian travel aesthetics. The DHR augmented the impression of such scenery through motion, proximity and mechanised 'participation'. Passengers looked 'through the apparatus' (e.g. Schivelbusch, 1986). This suggests the problematic notion of 'pure' relations between person and landscape (Michael, 2000). Simple or sophisticated, devices afford, interfere with,

channel and stabilise observer-landscape relations. Onboard and trundling uphill, observation onboard the DHR was a 'seeing-with' to which mechanical motion and material structure contributed.

If there are few unmediated relations then travel is not a solo act. Moreover, and hence, the traveller is a hybrid subject: part person, part material technology. Travellers have long relied on a range of devices to traverse, inhabit and perceive the environment. Whether mundane, such as walking boots, or 'ephocal', such as the railway or photography, material technologies mediate travellers' perceptions, experiences and understandings of climate, nature and landscape (Michael, 2000; Urry and Macnaughten, 1998). Furthermore, cultural and historical study of landscape ought to think expansively about mediating devices. Vehicles have largely remained 'black boxes': background props which passively convey, rather than actively influence. Treating vehicles as constitutive of both the travelling subject and as agential contributors to the experience of landscape would provide more holistic understandings of the observation, encounter and representation of the environment.

Mitigation and mediation of Indian tropicality on the Calcutta-Darjeeling journey suggest a further point: the specific railway journey matters. Schivelbusch's (1986) notion of 'panoramic perception' and Larsen's (2001) 'mobile travel glance' should be understood as relationally-specific outcomes between three factors: the particular observer and their culturally-configured 'ways of seeing'; the mobile and material particularities of the vehicle in question; and the route (and direction) traversed.

In addition to exploring how the moving carriage mediated experiences of the environments outside, I sought in this chapter to study how late nineteenth-century colonial notions of racial and cultural superiority influenced British and other Western passengers' encounters in carriages, on platforms and around stations – and then returned to the DHR to discuss differing on-board experiences amongst Britons and Americans and Westerner and Indians.

The railway spaces of colonial India were the spaces of quotidian, face-to-face interaction amongst a relatively few Western passengers and a majority of Indian workers and passengers. By the late nineteenth century British residents tended to exhibit an almost scripted posture of public behaviour – one which Collingham, following William Hoey, calls 'rule by prestige' (Hoey, 1913; Collingham, 2001). This entailed conducting oneself with an authoritarian air and demanding deference from most Indians (see also Gray, 1995; Cohn, 1996). The railway network, moreover, was a point of British colonial pride (Kerr, 2005). British and other Western travellers to India resembled British colonialists and largely inhabited the physical infrastructures – the railway in particular – and social norms of colonialism. In effect, they stepped into a prepared social rank and milieu and journeyed around destinations and facilities which catered to their needs.

Yet Indian railway spaces, like those of Europe and America, were zones of public mingling and therefore of close and uncertain social relations (Freeman, 1999; Löfgren, 2008; Schivelbusch, 1986). In addition, combined travel, medical and residence guidebooks, such as Hull and Mair's *The European in India*, portrayed European and Indians as racially and bodily incompatible (1870, 140-46). British colonialists sought to separate themselves onboard by

travelling First Class and erecting barriers to social intercourse, such as inhospitable comportment or outright verbal and physical abuse (Hardie, 1909, 97-104; Webb, 1915, 83-84). Such tensions become contradictions when compared with a pervasive British colonial ethos that 'their' railway would uplift India economically and socially (Headrick, 1981; Kerr, 2005). Like First Class carriages elsewhere and though highly permeable, the DHR functioned partially as a mobile enclave. Its carriages sheltered British, European and American passengers physically and psychologically by placing them in a well-known material setting and paragon of Western industrialisation while surrounding them with familiar languages, laws, customs and food. This did not mean that all experience the DHR in a similar or agreeable manner. American passengers took a more critical view of the mountain train than their British counterparts and Indian passengers (official and clandestine) used it as a quotidian, practical means of transport and even foreign spectacle upon which to reciprocally return travellers' gazes.

Conclusion

In this thesis I have examined three vehicles – the palanquin, the elephant and the railway – with three chief results: I explored how each vehicle mediated travellers' experiences of the Indian landscape; I broadened the discourse of tropicity by studying dwelling, movement and hybrid perception; and, I challenged 'the traveller' as an independent and autonomous subject.

If there has been a dominant refrain echoing through this thesis, it is that there are no 'pure' relations between person and landscape (Michael, 2000). Travellers did not encounter their surroundings unequipped or autonomously. Rather, they relied on vehicles to enter, traverse, inhabit and arrive throughout their journeys. Vehicular motion, structure, schedule and route mediated travellers' interpretations of landscape. While the subfield of tropicity and Indian colonial history have indicated that mobility not only affected but constituted colonialism in India, neither have sought to examine how mobility shaped travellers' encounters and interpretations (Arnold, 1998, 2006; Kennedy, 1996; Morris, 1973; Cohn, 1996; Headrick, 1988; Kerr, 2005). Meanwhile, scholars studying the phenomenological aspects of travel and landscape have shifted analysis from text and discourse to practice, embodiment and materiality (Foster, 1998; Dubow, 2001; Wylie, 2002b; della Dora, 2008). Yet they minimise the role of material technologies of transport, dress and habitation so as to suggest that travellers encountered the surrounding environment free of assistance and interference.

In a sense, then, scholars studying European travel and landscape in India have tended to overlook a fundamental aspect of observant travel: the influence of vehicles on vision. Travellers' vision was hybrid vision. Though travellers carried with them their aesthetic criteria, individual tastes and vocational knowledge, *these were filtered through the vehicle in motion*. In other words, each vehicle constituted a particular visual regime.

Speed was one key determinant how a passenger saw their surroundings. The particular motion and pace of each vehicle choreographed the encounter with landscape. The palanquin and elephant proceeded at a walking pace. Unlike the train, which raised, separated and sped past, these vehicles led the traveller through their surroundings at a lope. Slowness occasioned propinquity and detail. Like *flâneurs*, palanquin travellers such meandered sedately through as much past their surroundings. The DHR's leisurely uphill trundle simulated this immersive and reflective perceptual pattern. In contrast, conventional trains rolling at full tilt illustrated more dramatic perceptual effects of speed. Indeed motion could reveal, or produce, landscape phenomena – such as bamboo geyser-like 'spoutings' – only accessible through an accelerated passage (Twain, 1897, 197; see also Larsen, 2001, 90). Velocity could combine with weather and topographical conditions. For Mark Twain, the fog and flatness of Bengal exaggerated the ebb of seemingly identical pastures, stretching the obscured horizon and duplicating and stitching together the succession of hamlets and villages (e.g. Twain, 1897, 197). At a broad visual register, railway speed expanded visual intake so that passengers apprehended the track-side landscape 'corridor' *en masse*, in terms of its macro-scale materialities: rhythms, shapes, colours and expanse.

Much cultural geographic study of landscape – of various theoretical standpoints – implicitly posits an erect and stationary or walking position, and thus a ‘visible sphere’ standard to human anatomy and motility. Vehicular structure shaped viewpoints. For example, while relatively slow, the palanquin's forward movement unfolded and occluded the immediate surroundings. This was not the commanding or possessive gaze of a promontory or the framed photographic capture (e.g. Pratt, 1992; Gregory, 2001; Ryan, 1998), but an ambulatory, immersive and almost tactile visual encounter. The elephant's ‘structure’ was primarily height. Like a walking promontory, the novel, sweeping and penetrating perspectives offered from the howdah stimulated as much as furnished observation. The train's structure was yet more influential. Raised, delimiting and lateral-facing windows configured passengers’ observation of the ‘outside’ world. Passengers saw by what Schivelbusch has called ‘panoramic perception’: a shifting, framed, flat visual field, rendering the places passed “like pictures on a wall” (Schivelbusch, 1986, 52-69; quoted in Stilgoe, 1985, 250). That is, conventional trains encouraged panoramic perception. In contrast to most historical research on landscape from railways, I have studied a geographically and topographically distinct train: a Himalayan hill-railway (e.g. Schivelbusch, 1986; Stilgoe, 1985; Retzinger, 1998; Larsen, 2001; Bissell, 2009). This small, slow locomotive ascended over 7,000 feet along a mountain spur. The DHR's diminutive open carriages, combined with sedate pace, many halts and surrounding forests, placed passengers beside or even inside the surrounding landscape.

The schedule of railways factors into relatively few discussions of Indian and tropical landscapes. The spatio-temporality of vehicular movement, however, structured when and how the traveller observed their surroundings. The palanquin's frequent use by night meant that travellers saw landscapes in con-

ditions of darkness and illumination. For some, such conditions provided imaginative leeway, augmenting the romantic or exotic appearance of Indian landscapes and peoples (Roberts, 1835, 242-45; Acland, 1847, 36-37; Rousset, 1882, 65). On the train, schedule, transition and guidebook advice gathered visual apprehension towards nodes of departure and destination. Rather than continuous or uniform, passengers' accounts display peaks and troughs according to spatio-temporal intensities of the encounter with passing landscapes, a pattern of segment-specific, spatio-temporalised observation Bissell has termed 'landscape vigilance' (2009, 49).

Vehicular mediation shaped not only observations but also depictions of landscape. The palanquin and the railway showed how the dynamic, embodied and tactile progression from site to site, and sight to sight shaped representation. The new arrivals to Madras and Calcutta, Moyle Sherer and Vivian Majendie, used what I have termed 'mobile' prose to mimic the movement and flow of observation from an ambulant palanquin. By descriptively jogging along with repetition, alliteration and onomatopoeia, each author maintained fidelity to their phenomenological encounter. Onboard the railway, Twain's rhythmic prose likewise imitated the pulse of passing objects. He communicated the visual tempo with staccato sentences, a style employed by Victor Hugo, Charles Dickens and other late nineteenth-century authors to express the novel visuality engendered by the railway (Dickens, 1896, 59-67; Schivelbusch, 1986, 51-64). Whether each vehicle subconsciously shaped these travellers' language, or whether they – retrospectively and consciously – chose motion-imbued metrical structure, the result remains: vehicular route and movement compelled these authors to employ a mode of representation which conveyed the perceptual nature of their encounter with the landscape.

If a vehicle's pace, structure and schedule mediated passengers' observation of the landscape, then mobility calls into question what some comparative literature and cultural geography depicts as the European traveller's position of visual mastery (Pratt, 1992; Spurr, 1993; Gregory, 2001). Palanquin, elephant and railway vision were hybrid vision; passengers did not look autonomously but "*through* the apparatus" (Schivelbusch, 1986, 64, *emphasis in original*). Pratt and others have depicted the 'Euroimperialist' traveller as a relatively autonomous subject enabled and (to a lesser degree) constrained by the power asymmetries of colonial social relations (1992). Yet the fusion of vehicle and traveller redistributed the agency of this gaze amongst human and non-human entities, both amplifying and contorting Pratt's 'monarch of all I survey' mode. In addition their cultural mediation, the traveller observed according to the vehicle's material and mobile particularities.

I began this thesis with Bruno Latour's two fundamental questions: "When we act, who else is acting? How many other agents are also present?" (Latour, 2005, 43). The traveller, as much as any historical subject, relied on animate and inanimate agents: bearers, animals, trunks, tents, provisions and so on. Vehicular mediation of landscape indicates hybridity: a traveller was the composite result of their person, their hired vehicle and local human and non-human agents. The 'breakdown' of a bearerless palanquin highlights this heterogeneous subjectivity. Only with a full compliment of willing and able bearers was the traveller mobile, secure and able to complete their journey. Sundered from their palanquin, the traveller became stationary and delayed; in the Indian heat and sun, moreover, they became delicate and vulnerable. A train may seem too large or technologically complex to 'mix' with a human being. Yet, like a hat or a car, the passenger temporarily absorbed the railway's mobile, material, discursive and social properties into their person.

The elephant, perhaps above all, showed the extent to which human, animal and material mingled. The elephant-borne traveller comprised tradition, training, mahout and howdah, as well as a cognitively complex and physically capable animal. To ride in a vehicle was, as Merleau-Ponty wrote, “to be transplanted into [it], or conversely, to incorporate [it] into the bulk of our body” (quoted in Hickman, 1990, 44). The picturesque or romantic relations which travellers might form with landscape rested on the access, safety and comfort which their assembled subjectivity afforded.

Taken together, mobile mediation and the non-human agents of travel suggest that the category 'the traveller' is insufficient and inaccurate. While I do not propose we reject this term, scholars investigating colonial travel should conceive of a European as a subject highly reliant on and partly composed by their hired human, animal and material assistants. This subtle reconsideration rightfully, if marginally, displaces the European as the sole or primary traveller and encourages consideration of the subaltern others. In addition, while landscape scholarship has been a fertile and progressive field of cultural geography, relatively little attention has yet been placed on the multifarious constitution of the observer and the profound mediating influences of mundane technologies (Wylie, 2007). Regarding Indian travel, historians have explored the symbolic roles of dress, instruments and industrial technologies (Renbourn, 1957; De Caro and Jordan, 1984; Headrick, 1988; Kennedy, 1990; Collingham, 2001; Cohn, 2001). Such objects, and less famous artefacts of everyday use, constituted the traveller's person; without them, travel did not occur.

Across the nineteenth century, British and other Western travellers came to India with ideas about what Indian climate and landscape were like. Scholars

studying travel and tropicality have sought to understand how travellers encountered and experienced warm equatorial territories around the earth, and the significance of travel in producing Western knowledge of these places (Driver and Martins, 2005, 3-4). Like other discourses, tropicality serves as a theoretical frame through which historians have grouped and analysed representations, practices and institutions (Livingstone, 1991, 1999; Arnold, 1996; Driver and Yeoh, 2000; Driver and Martins, 2006)). Driver and Martins have criticised 'projection models' of colonial discourse analysis and advocated the notion of 'transactions', a metaphor which encourages an understanding of European experiences and interpretations that gives more agency and autonomy to the environment "as a living space of encounter and exchange" (2005, 5). They argue, furthermore, that historians should study matters of representation through matters of experience because inhabiting and moving through tropical nature shapes its depiction.

While I share Driver and Martins' aim and conceptual conviction, I believe that, by taking people, places and representations as empirical foci, historians continue to study travel and tropicality from a sedentary perspective. My approach to tropicality, by contrast, is through vehicular travel so as to attend to matters of experience and moving through tropical nature, as Driver and Martins advocate, and, more specifically, to attend to the highly mobile nature of nineteenth-century British experiences of India. Across the three vehicles in this thesis, this empirical and conceptual approach has led me to affirm, challenge and extend certain aspects of Indian tropicality.

In Section 1, *Rethinking mobility and landscape in India*, I wrote that tropicality was a conceptual space, implicated in colonialism and deeply ambivalent. The travellers I have studied, from new arrivals to c.1800 Madras to Americ-

an visitors to Darjeeling c.1900, nearly all displayed expectations of vegetative fecundity and exuberance, as well as cultural backwardness, through which they interpreted India and Indians. British colonialism, moreover, enabled their travels, either directly in terms of employment, settlement or fieldwork, or indirectly, in terms of transport infrastructure and consular access.

While India's tropical reputation typically exuded 'dark' characteristics of discomfort, disease and death, vehicular mobility has tended to foreground a more positive suite of experiences. Travellers reclined, rested and read while sheltered inside palanquins equipped with ventilated walls, sliding doors and moistened 'tatties' that created a rudimentary form of air-conditioning. On elephants, they rode above the dust and glare of the plains, while under the cover of a chattah. Across the Bengal plains or trundling up the foothills, railway passengers gazed out at passing landscapes from a familiar material setting and, in the case of the DHR, according to British colonial cultural norms and often in the company of fellow Westerners. Like the protective tropical clothing travellers wore (*sola topis*, *cummberbunds*, etc.) and like the hill-stations colonialists and tourists sojourned at, moving vehicles tended to function as technologies of climatic shelter, mitigation and avoidance. In this sense, and in contrast to the medical treatises, mortality rates and racial discourses historians have examined (Curtin, 1989; Kenny, 1995; Kennedy, 1990, 1996; Arnold, 1998, 2004), Indian tropicality as experienced from the perspective of moving carriage seats displays more repose, comfort and aesthetic contemplation.

By attending to the routines and schedules of mobility in India, I have explored a little-discussed aspect of tropicality: nighttime. From the eighteenth-

and nineteenth-century imagery to Bernard Smith's canonical (1985) *European Eyes and the South Pacific* to more recent critical inquiry (Stepan, 2001; Driver and Martins, 2005; Arnold, 2006), Western attention to tropical nature has foregrounded sunlight, sand, surf, swaying palms and so on. Yet the diurnal norms of early nineteenth-century colonialists and practicalities of mobility in India meant that travellers often experienced India by night: sociality after dark, the campfire, night palanquin stages and overnight railway journeys. In particular, the ocular adaptations and shrouding of darkness could ameliorate the arid tones and conceal poverty while outlining iconic vegetation, animals and structures.

Whether in terms of landscape, tropical nature or colonial history, travel in India did more than merely connect events across an expanse of journey and experience. While typically peripheral to research on travel and landscape, the mundane interstices of vehicular mobility were a significant space of experience and means by which travellers encountered and experienced their surroundings. As much as any subject, the traveller relied on various devices in order to traverse, inhabit and understand foreign environments. As this thesis has shown, the technologies of transit – the palanquin, the elephant and the railway – are at the same time technologies of observation, shaping the experience of landscape, ideas of tropical nature and the traveller as subject.

Appendix 1

Captain Moyle Sherer's description of Madras. From Sherer, M. (1824) *Sketches of India*. London: Longman, Hurst, Rees, Orme, Brown, and Green, 10-22.

the mind, and a great deal, I confess, to pain the heart of a free-born Englishman.

Now, reader, I must beg you to accompany me for a hasty look at Madras, in my palanquin. A palanquin, such as the English use, is a close litter, with pannels, painted and varnished like a carriage. You may stretch yourself at length, or sit half up in them, as on a bed. They have cushions and linings of leather, silk, or chintz ; and large sliding doors on both sides, with venetians. Nine men carry you ; four at a time ; two under the pole before, and two behind. Relieving each other without stopping, they will run with you twelve miles in three hours. They jog along, making a continual singing in regular cadence, which assists them to keep step.

The few pictures I will now attempt to sketch, are designed to assist you,

reader, in accompanying me to such places and scenes as I may carry you to look upon hereafter, when I shall hope to excite in your bosom some portion of the interest I felt in them myself. An interest which, if not altogether destroyed, would be much weakened by continual explanatory interruptions. For the rambling and familiar style I have chosen for this portraiture, I crave your patient indulgence.

These poor wretches, with no other clothing * than a small rag round the middle, a larger one for a turban, and loads on their heads, whom you meet singly, or in large groups, are the common coolies, or road porters of the country; for thus light burdens are usually conveyed here, even for distances of two or three hundred miles.—This

* The description may apply to all the poorer labourers of India.

haughty-looking man, with a prominent nose, dark eye, and olive brown complexion, having a large turban, muslin vest, gaudy silk trowsers, and noisy slippers, is a Mahometan.

This next, with his head bare and shaven, except a few thick-falling locks clubbed behind, his forehead marked with stripes of the ashes of cow-dung, his naked body, clean yellow-coloured skin, the zennaar, or distinguishing threads worn over the shoulder, and a large pale salmon-coloured loin-cloth, is an officiating brahmin.

These fat-looking black men, with very white turbans and dresses, and large golden ear-rings, are dubashes; a sort of upper servants or public inferior agents, ready to make any purchases for strangers or residents; to execute their commissions, change their monies, or transact any business for them.

These men, with red turbans, broad shoulder-belts of leather, breast-plates, sashes, and swords, are government peons of the zillah, or police foot-soldiers. There are establishments of them in every district. They are distinguished by their belt-plates; the belts being often of red, blue, or yellow cloth, or even tiger-skin.

There is a group of native women returning to their houses with water: they are of a common class; but observe their simple dress, erect carriage, and admirable walk. One piece of cloth wrapped twice round their loins in its breadth, and passing in its length upwards over the bosom, is either disposed mantle-like to cover the head, or thrown gracefully across the left shoulder, and brought under the right arm to the middle. Their shining hair is neatly rolled up into a knot at the back of the head; and is occasionally ornamented with little chaplets

of pale yellow flowers. The vessels which some carry on the head, some on the hip, are of brass or clay ; but ancient, and urn-like in their form.

This low, curiously-carved car, with a white canopy, and cream-coloured bullocks, having their horns ornamentally tipped with wrought brass, collars with bells, and crimson body-clothes, is the conveyance of some native merchant, or shroff.

These horsemen with red hussar jackets, high spherical-shaped caps of blue cloth richly ornamented, leather breeches, boots, and English saddles, so well mounted, and as light-coloured as Spaniards, are of the body-guard of the governor.— Observe the horse-keeper following that staff-officer ; thus the groom runs after his master in this country, and will keep pace with him at a smart canter. He is

always provided with a leading rein and chowrie.*

These well-appointed black soldiers clothed and accoutred so completely like British troops, except the peculiar cap of blue cloth with brazen ornaments and plates, are sepoy's of the Madras establishment.

That officer in dark blue uniform with red facings, brazen helmet and red horse-hair, is of the Madras horse artillery; a corps most deservedly admired all over India.

The black or native town of Madras is very extensive; but, in general, meanly built, noisy, and dirty. There are, however, many large, fine houses belonging to merchants and shop-keepers; and very many streets of small neat houses

* The chowrie is a fly-flap, made of the singularly bushy tail of the Bootan cow.

occupied by Portuguese, Armenians, and half-casts; or by such of the native merchants and clerks as are become half European in their habits of life. There are a protestant church and some mission chapels, an Armenian church of old date, two or three Portuguese chapels, and a capuchin convent.

That monk with the pale Italian countenance, grey hair, small scull-cap, black robe, and white cords, just stepping out of that old palanquin, is the superior: he is a native of Rome.

This fine-looking young man, in a close white vest with a dark blue sash, and high cap of black velvet with many points, is an Armenian gentleman; and the low stout man in a purple robe and mitre cap, with a long black bushy beard, who is speaking to him, is a priest from Armenia. — Almost all these persons of half-cast complexion, whom you are con-

tinually meeting, are the descendants of our countrymen, or other Europeans by native mothers; those of Portuguese extraction are very numerous.

All the government offices are in Fort St. George, which, though not large, is strong, handsome, well armed, kept in excellent order, and contains a fine arsenal. In the centre of a small square, surrounded with handsome buildings, stands a fine marble statue of Lord Cornwallis. A plain neat church adorns the open space just leading from one corner of the square. The government house is situated more than a mile from the fort on Choultry plain. One front of the banquetting-room, as seen from a considerable distance, has a noble imposing appearance.

A grand road leads from Fort St. George to St. Thomas's Mount, nine miles distant. It is certainly the finest

piece of road in India ; and is not exceeded by many in Europe. — A fine avenue of trees runs the whole length of it ; and on its left, at the distance of seven miles from the fort gates, is a race-course, and a handsome stand on it.

The civil servants live in garden-houses, all built nearly in the same style, with porticoes and verandahs ; and while the beautiful chunam with which they are covered preserves its polish, they have a pleasing and elegant appearance. They are surrounded by small paddocks with trees, shrubs, and flowers ; and are most agreeable residences.

Their carriages are all of English fashion ; but their equipages and horses are not, I think, remarkable. — The Mount Road is the favourite drive. A cenotaph about four miles on it, has been erected to the memory of Lord Cornwallis ; and on the sweep round this monument they

slowly circle as in the gay ring in Hyde Park at home.

I engage, however, rather to show you natives than English residents, therefore let us turn down the Triplicane Bazaar : here the population is Mahometan. These crowds of mussulmans ever regard us with jealousy, hatred, and scorn. Their nawab, though stripped of authority, still sits upon a musnud *, rides in state on an elephant, and holds a durbar †; but can never, I should think, listen to the royal salutes so repeatedly fired from the British fort in compliment to his princely rank, without shrinking from the mockery. Courtiers, sirdars ‡, and troops, the substantial appendages of a native prince, are, luckily for the happiness and peace of the Carnatic, no longer his.

* Throne. † Native court. ‡ Native chiefs.

These restless-looking, haughty idlers, who are sauntering up to us, their little all expended on the fine robes they wear, save a frugal meal provided daily in their gloomy homes by trembling females or some wretched slave, would, but for our happier rule, be the petty tyrants of some of those peaceful villages we shall soon visit.

The large man on the grey horse, with the shawl turban, gold-threaded sash and silver-headed creese (or dagger), to whom they are all now salaaming, is a native of some distant province, not perhaps under our authority. The housings of his horse you see are embroidered with gold ; his reins silken ; the animal too has a breast-plate and head ornaments of shell-work ; the servant running by his side holds that spade-shaped screen so as always to shade his face ; and the man himself, though looking vain as well as proud, has a free, cheerful, self-satisfied air.—Not so this moollah or Mahometan

priest. Mark his iron-grey beard and wrinkled forehead; and those fiercely sparkling eyes, alive and youthful with a feeling of hate. What an insolent vindictive look he casts at us ! He recollects, for he was a young man then, when in the year 1780 the horse of Hyder rode shouting through the gardens of our countrymen ; and recollects too that he wished them success.

As you pass along this bazaar, you see exposed for sale under mean tile-covered verandahs, supported by wooden pillars, all such articles of food, clothing, use or ornament, as there is a common demand for among the Moors at Madras. But, from the general poverty of this class, you meet with no display of costly goods or delicacies ; — all sorts of rice, grain, pulse, vegetables, spices, fruits, and coarse sweetmeats ; — shops filled with cloths, silks, shawls, and tissue of common quality ; — others with lace, em-

broidery, and tinsel ; — others with slippers of leather or cloth, more or less showy in colour and ornaments ; — others with all sorts of women's "joys" or ornaments, such as ear-rings, nose-jewels, armlets, anklets, and silver zones ; — some with small carpets of different patterns ; — others with horse furniture of cotton, silk, or embroidery ; — some with brazen vessels for cooking and drinking ; — others with hookah bottoms, &c. Such is the common display of goods in an Indian bazaar. Moreover, the different workmen ply their trades in the open air.

At the farther end of the Triplicane you pass a mosque, and come upon a place of tombs, some of which are large, and look like small temples. But it is not at Madras that the traveller must look for specimens of mosques, pagodas, or tombs. A mile beyond these is the little town of St. Thomè, prettily situated on the beach. A small cathedral

Appendix 2

Louis Rousselet's description of his his hired elephant traversing and descending a precipice. From Rousselet, L. 1882. *India and its native princes*. Bickers & Son, 443-44.

CHAPTER XLIII.

FROM SANCHI TO BHOPAL.

Sagacity of an Elephant.—Piplia-Bijoli.—The Tôpes of Bhojepore.—Andher.—The Tôpes of Sonari.—Sâtdhara.—The Horses of Sahapore.—Legend of Shakasiam.—Bhopal.—The Moti Bungalow.



O finish our exploration of the valley of Bhilsa, we had still to visit the ruins of four Buddhist settlements—Bhojepore, Andher, Sonari, and Sâtdhara; and the two first compelled us to go out of our way about twenty-five miles towards the east.

On the 9th of May we left Sanchi, and, recrossing the Betwa, followed the right bank. The village of Piplia-Bijoli, whereat we were to encamp, is hidden behind the mountains which bound the valley on the east, round the base of which a passable road conducting to it winds; but our Gound guide thought proper to shorten the distance by making us cross the neck of the mountain. Our brave Rewah elephant quickly climbed the tolerably gentle slopes overlooking the valley, but on the summit the dried jungle was so thick that it became almost impossible to advance. Venting curses on our guide, we with great difficulty reached the opposite side of the plateau, where we found ourselves facing a precipice the sides of which descend almost perpendicularly for about fifty feet. A path, scarcely practicable for pedestrians, over the different windings of the rock, presented itself to us. It seemed utterly impossible that an elephant should venture on this mere goat-walk; the mahout, however, assured us that his animal would accomplish it. I was of opinion that the elephant should be allowed to attempt the task alone, but from the tone in which the mahout said to me, "Do not fear, Sahib!" it would have been ridiculous for me to let the two Indians who followed us suppose that I had less courage than this man, who was compelled to remain at his post. After a thousand admonitions shouted at him by his driver, the elephant commenced his perilous descent. To see with what care he balanced his body! To observe the dexterity with which he put his four feet together on blocks scarcely large enough to hold them! The only sign of agitation he exhibited was a slight tremor which agitated his whole body. The rock, of reddish sandstone, projected huge masses suspended over the abyss, on which we were compelled to step; and before venturing on these blocks, the elephant convinced himself whether they were capable of bearing him by weighing on them with his fore legs repeatedly, without, however, risking the equilibrium of the rest of his body, which was thrown backwards. We were only a few feet above the bottom when the mahout, impatient at these delays, raised his pike to strike the elephant; and at the same instant the enormous stone over which he was urging him,

yielding to the repeated efforts of the intelligent beast, got detached, and rolled down with a crash. A moment more and we should all have perished in a frightful fall: the wonderful sagacity of our elephant had saved our lives. Arrived at the bottom of the descent, I gazed at the rampart of stone which rose behind us; assuredly the sun must have made us lose our wits for us to have risked our lives so madly. These fifty or sixty feet had taken us forty minutes in the descent; and we found our people at Piplia, already installed, and very uneasy at the delay.

The ruins of the ancient Buddhist settlement of Bhojepore cover the summit of the hill directly above the village of Piplia. This hill presents nearly the same arrangement as that of Sanchi, forming a gigantic staircase composed of four steps of even surface, and with vertical facings leading to a perfectly level plateau; the latter covered with the foundations of walls, some feet in height, which scarcely permit one to distinguish the traces of the ancient constructions. In the midst of these heaps of ruins stands a curious group of masonry; stone walls sloping visibly backwards, like a broken piece of a pyramid, the angles being flanked by square towers embedded in the mass. The façades have an extent of ninety feet, and are twenty-four in height. A staircase penetrating the wall leads to the summit; where, on one of the sides, rises a sculptured frontal, near which lies a remarkable statue of Buddha. At a first glance it might be supposed that this massive terrace had served as a basement to the temple, the ruins of which are visible; but one has only to examine the sculptures and the inscription which ornaments the foot of the statue to see that they date only from the sixth century, while the terrace appears contemporaneous with the *tôpes* which surround it, and which are traced back to the third century B.C. In addition to this, a little farther on, stands a similar construction without any trace of a temple on its summit. In their present state, it is difficult to understand the meaning of these enormous masses of stone, which are to be found among all the Buddhist settlements of the valley. May they not have been simple platforms where the pontiffs of Buddha assembled during the festivals, and whence, surrounded by their congregations, they addressed the people, and exhibited the sacred relics to them?

The plateau has six more *tôpes*; of which the most important rises in the centre of a square court surrounded with walls; the dome, about fifty feet in diameter, resting on a cylindrical plinth of four feet, and standing in the midst of a circular terrace five feet high. Another, placed in an adjoining court, measures thirty feet in height. Cunningham found in it several funeral urns, unfortunately without inscriptions, and in one of these a charming model of a *tôpe* in rock-crystal.

On the three lower steps may be counted thirty-four more *tôpes*, all in the Daghoba style; but none of them afford traces of sculptures or colonnades.

From Piplia-Bijoli, I made an excursion to the Andher group, situated three miles towards the east on the summit of steep peaks. This group consists only of three *tôpes*, of which the largest is about forty-eight feet in diameter at the base of the hemisphere, and must measure twenty-four feet in height; surrounded by a Buddhist colonnade six feet high, decorated with medallions and fine bas-reliefs. These *tôpes* have supplied an interesting collection of funeral urns, containing relics of the most celebrated propagators of Buddhism in the time of Asoka,

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